

THE POLITICAL ECONOMY OF CONSUMPTION:
LABOUR, LABOUR-POWER AND CONSUMPTION
IN THE MARXIST THEORY OF VALUE

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Declaration

I declare that this thesis, submitted to the Faculty of Social Sciences in candidacy for the degree of Doctor of Philosophy, has been composed by me and is entirely my own work.

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I wish to thank especially Barbara F. Bates for her material and moral support, offered in a spirit of camaraderie; and also Donald Mackenzie, who turned up periodically with the most incredibly tactful advice. I must also acknowledge a special debt to my parents, Dick Jirō and Sumiye Kobashigawa, who have stood by my efforts to achieve knowledge for many long years.

ABSTRACT

The Political Economy of Consumption: Labour, Labour-Power and Consumption in the Marxist Theory of Value

The 'value of labour power' is a relatively underspecified category within Marx's analysis of the political economy of capitalist society. It is impossible to know absolutely how Marx would have developed it if he had written his projected Book of Wages, which can be viewed as the extension of the analysis of Capital to labour's side of the story. The project set by this thesis is to explore how the concept should now be employed within the framework of a Marxist political economy. The need to do so arises from the historical development, subsequent to the time of Marx, of the so-called 'affluence' of modern capitalist societies. To make this phenomenon intelligible, with all the richness of development on the consumption side, the theory must be extended to the neglected sphere of consumption and must be clearer and more specific, in particular, about the category of the 'value of labour power', which serves as a hinge term linking production and consumption.

The specific areas explored in this thesis include: (1) an analysis of Marx's original 'cost of (re)production' definition of the value of labour-power, with consideration of its compatibility within value theory in the light of subsequent attempts to resolve the so-called 'transformation problem'; (2) a discussion of the problems posed by the heterogeneity of labour for both Marxist value theory and the value of labour-power (the skilled labour debate), which allows an

examination of alternative approaches to mathematical formalisation; (3) a brief discussion of the connection between the domestic labour debate and the value of labour-power; (4) the interrelation of the value of labour-power and Marx's concept of relative surplus value, introduced through a discussion of the recent 'Regulation theory' analysis of the structural characteristics of postwar capitalist accumulation linking mass production with a distinct 'fordist' mode of consumption; and (5) an exploration of specific developments in consumption patterns which provide a sketch of the problems which a Marxist theory of value will encounter in the sphere of consumption.

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ERRATA

p. 98 n. 113 Incorrect title. Change to 'Why Labour

Is the Starting Point of Capital'.

p. 154 para. 2 l. 5 Insert after 'contradiction':

of the non-correspondence of prices and values.

p. 170 ll. 6-7 The unspecified 't' relation is a relation of commodity exchange in contrast to the monetary relation ' t_k '.

p. 215 l. 7 Insert after 'social units': (the paid labourer and the family).

p. 250 para. 2 l. 6 Should read "Wage cuts are a further possibility, which have the effect..."

p. 305 table 3 The two sets of figures for 1970 are drawn from two series, with slightly different values as shown.

p. 368 Bibliography: After 'Gleicher, David', add:

Gouverneur, Jacques. Contemporary Capitalism and Marxist Economics. London, Martin Robertson, 1981.

Analysis of changes in living standards within the framework of Marx's theory of value would link changes in the individualised sphere of consumption to the dominance of the sphere of production in capitalist society. His theory of value gives a precise form to the connection between the wage-labourer's life outside of production, in the sphere of consumption, and the capitalist process of production

INTRODUCTION

The continuous development of capitalism into historically new forms in the twentieth century includes, as one major element, the general rise in the material standard of living in the advanced industrialised countries. The analysis of this phenomenon, linking the development of mass production techniques with a rising standard of living, can be referred to as the 'political economy of living standards'. Clearly, for a Marxist analysis, which sees the accumulation of capital on the basis of antagonistic social relations of production as the central process in the reproduction of capitalist society, analysis of changes in the sphere of individual consumption has been a secondary matter. Yet, these changes in workers' living standards, as well as other similarly significant changes, such as the development of the interventionist state, the concentration of capitals, etc., have pulled the image of capitalism into new shapes. How aptly Marxism analyses the nature of capitalist society depends on its ability to provide an intelligent grasp of these new forms which Marx, writing near the end of the last century, sometimes took note of but only as embryonic developments or suggestive possibilities.

Analysis of changes in living standards within the framework of Marx's theory of value would link changes in the individualised sphere of consumption to the dominance of the sphere of production in capitalist society. His theory of value gives a precise form to the connection between the wage-labourer's life outside of production, in the sphere of consumption, and the capitalist process of production

which appears to be the source of expanding social wealth. Profits - the capitalist form of the social surplus - was traced by Marx to its social basis in the wage-labourer's performance of surplus labour for capital. That is to say, the worker, stepping out of the sphere of his or her domestic existence (historically contracted to an arena of consumption), goes out to work where capital has created a separate sphere of production. The relation of exploitation - the difference between the value the worker creates and the value they consume, which arises across the gap between production and consumption - is secured for capital through the connecting link of the wage-relation, the 'free' contract between capital and labour. Through their participation in the wage-relation, out of necessity, the wage-labourer's existence is then subject to a system of regulation in value terms by becoming one of its terms; that is to say, they become a commodity with a value, subject to the 'Law of Value' described by Marx.

The regulative effect of the category of value, through which Marx aimed to expose the historically specific form of class relations constituting capitalist society, never shows itself in a directly observable form. Value is instead an aspect of a social relation of domination between classes; with surplus value expressing this domination as the appropriation of surplus labour in the observable form of profits. While the nature of value will be a central preoccupation of this thesis, our discussion will focus on one particular form of it - the value of labour power. Various characterisations of the concept of value will be encountered along the way. One such

characterisation, drawing upon A. Giddens 'structuration' schema,¹ helps us to avoid the pitfall of thinking of value as an objective existent, a material force in and of itself; it illustrates how value can be conceived of as a 'hidden presence' within its observable forms.

Value may be conceived in terms of Giddens' schema as a structural dimension or feature of the interaction of class-conditioned agents engaged in the practices of production for exchange. The elements of this practice - prices, money, commodities, wages, the production process, labour discipline, etc. - are the (material) media through which the interaction of agents is conducted. The interrelation of structure and interaction is conceived in the following general way:² Value as a structural, rather than a (natural) material existent, has a determinative effect in the form of one individual drawing upon the structured practices of others to carry out their own actions and, in doing so, either reproducing the structure of the relations between them or transforming it.

The structure expressed by the concept of value is a specific form of interdependence among the individuals who ^{are} party to a commodified system of production. While time is the ultimate scarce resource in any productive system,³ the capitalist organisation of

¹Anthony Giddens, Central Problems in Social Theory, London: Macmillan Press, 1979.

²Ibid., Ch. 2. Giddens' concept of 'structuration', his main postulate of social theory, is intended to express in a dynamic way his conception of a duality of structure in human interaction, which he offers as a resolution to the classic paradox of social existence, the fusion of subjective and determinative aspects. Human interaction is structured and structure is reproduced (or transformed) through interaction.

³A. Giddens, A Contemporary Critique of Historical Materialism, London: Macmillan Press, 1981, pp. 119-20.

economic activity, basing itself on the wage-contract (specified in terms of time), attaches a time dimension to the dominating class' appropriation of the surplus by virtue of subordinating the creative power (productive labour) of the dominated class in a strict, time-regulated production process aimed at ensuring a surplus. That at least is Giddens' account of how value as time not only is the specific form of the interdependency of human agents spread over a division of labour, but also reflects the exercise of power between dominating and dominated classes. As Giddens says, "the extraction of surplus becomes part of the very process of production."⁴

A perspective of this sort on the category of value in Marx's theory makes of value not a materiality in itself, but a (structural) form through which the interactions of production, exchange and exploitation are conducted and constitute a capitalist economy. Value is thus grasped as a category whose existence is implicit in the interactions of agents within a capitalist society, and avoids the reification of value into an invisible force governing those interactions. In this way, the 'fetishism of commodities' Marx speaks of in connection with the law-like behaviour of the realm of economic phenomena in capitalist society is not reproduced in a reified concept of value. Taking the concretely observed interaction as the real substrate of the analysis (rather than material objects in the naturalistic sense, as in a crude form of materialism), the scope, content and application of Marx's theory of value requires continual reassessment as new forms of social interaction emerge in the political economic development of capitalist society. All the more so where the

⁴Ibid., p. 122.

initial connection between value and the phenomena is insecurely made.

The value of labour-power, the subject matter of this thesis, is one of the categories of Marx's value theory which appears as a nodal point where a number of contemporary Marxist debates meet. Within each of these debates, the concept of the value of labour-power has been questioned, revised, expanded or abandoned without reference to the issues raised by the others. The reassessment has not only been provoked by the changes which have occurred in capitalism since Marx's time, which bring to the foreground questions concerning the position of the state, gender, race, etc., in a Marxist political economic analysis; but questions concerning inherent problems in the original conception tend to be revived along with the new ones. That is to say, the uncertainty attaching to the value of labour-power category is not a new phenomenon, but goes back to its relatively undeveloped state in Marx's Capital. Above all, there is, I believe, general recognition of the difficulty of being more specific in relating wages and the worker's material standard of life through the concept of the value of labour-power beyond Marx's reference to a "historical and moral element" in this determination. The status (and interpretation) of more specific prognostications by Marx, such as the 'immiseration of the proletariat' as against his thesis of 'relative impoverishment' and the "golden chain" of rising material standards of living, become uncertain because of the vagueness of the value conception at this point.⁵

⁵K. Marx, Capital I, Vol. I (Harmondsworth, 1976), p. 275 for the "historical and moral element"; Communist Manifesto. Selected Works (London, 1968), p. 45 and 47 on 'immiseration of the proletariat'; Capital, Vol. I, p. 659 on 'relative impoverishment'; p. 769 on "golden chain."

Another traditional area of uncertainty has derived from Marx's handling of the question of skilled labour. It remains an unresolved problem, although it is no longer believed that Marx's theory of value stands or falls with its ability to resolve it. The original problem was how, in value terms, to account for the fact that the products of some kinds of labour were valued more highly and that the labourer, generally skilled in a particular craft, was also paid more than simple unskilled labour. Marx's answer was expressed in terms of his theory of value, but not to everyone's satisfaction subsequently; he also did not systematically work out the interrelationship of different categories of workers (labour-power) or the effect on other parts of the theory. This remains to be done. An additional impulse for re-examining the skilled labour problem has come from contemporary analyses of labour segmentation in capitalist economies. The differentiation of workers by gender, race, age, etc. in terms of access to jobs, wages and working conditions have impinged on the skilled labour question in two ways: the question of whether these forms of discrimination involve differences in degree of exploitation and how such differences are to be accounted for in the political economy of capitalism; and whether the analysis of skilled labour provides any theoretical guidance.

The reassessment of the category of the value of labour-power has been occasioned by other contemporary debates as well. Attempts within the domestic labour debates to integrate the labour of women to the overall political economy through the value theory have stumbled over the way and the extent to which unpaid labour performed within the home enters into the process of capital's appropriation of surplus-value. Similarly, debates over the role of the state in a capitalist political economy raises questions over the impact

of state provision of benefits financed through taxation on the relation between wages and the value of labour-power; this analysis is further complicated by Marx's productive/unproductive labour distinction insofar as the state employs labour for the direct provision of services to the working and non-working population. Very likely, a systematic review of the peculiar role of labour-power in Marx's analysis of the capitalist mode of production will uncover many more questions concerning the determination of the value of labour-power than can actually be handled in the scope of this study. It is hoped that an investigation into these, by and large, separate discussions will provide sufficient insight into the inner workings of this segment of the theory that the appropriate form of analysis in terms of value can be worked out and the basis provided for extending Marx's value theory into the domain of consumption relations.

The four parts of the thesis are structured as a progression from exposition and analysis of the concept of the value of labour-power (Parts I to III) to the development of its role in the analysis of consumption. The value of labour-power provides a lens which allows the investigation to examine the problems of interest in both directions in bringing together the theory of value and the phenomena of consumption. The first three parts of the thesis follow Marx's division of the determination of the value of labour-power into three distinct aspects: the maintenance of labour-power, its formation as skilled labour, and its generational reproduction. Associated with each of these aspects is a long-standing debate concerning the validity of the theory of value. The aim in exploring certain positions taken in these debates is not so much to resurrect them, but to draw out of them a form of value theory which is congruent with some of the basic,

empirically familiar aspects of the wage-relation, which mediates value relations in production and the sphere of consumption.

Part I describes Marx's original definition and use of the value of labour-power to link the wage of labour to its subsistence requirement in consumption (the maintenance of labour-power). The question of interpreting the relation between the wage and consumption through the value of labour-power is considered in terms of the substance of Marx's 'cost of production' conception and its effect on value theory; the latter aspect leads to counterposing an alternative definition, based in the controversy over 'the transformation problem', and concerns problems in the theory of value which impinge on his definition of the value of labour-power. In Part II, the second 'moment' of the value of labour-power, the formation of skilled labour, provides the basis for a discussion of the appropriate value-theoretic response to a multiplicity of wage levels, which relates directly to the stratification of standards of living in the sphere of consumption. Part III, which was originally intended to tie the 'domestic labour' debate to questions of consumption and the theory of value, bypasses the familiar value-theory aspects of that debate and looks at some newer problems concerning the relation of the value of labour-power to domestic production, the unit of consumption, and the variability of needs.

Only in the final, fourth part does the thesis undertake to explore the sphere of consumption per se as it impinges on the theory of value. The work of M. Aglietta has been drawn upon for a general perspective on the interrelation between historical developments in the spheres of production and consumption, but the real aim is to uncover some of the conceptual requirements for incorporating the sphere of consumption into the theory of value. The topic of consumption is

much too vast for this thesis, but hopefully the basis has been laid for a continuing investigation.

PART 1

WAGES = VALUE OF LABOUR-POWER: THE BASIC FORM

The basic formula of wages equal to the value of labour-power corresponds to the simplest distinction between capital and labour. It expresses the wage relation between any capital and any labourer. The hiring of the worker by capital is represented as a relation of commodity exchange: Labour-power is the commodity; its price is a wage, corresponding to the value of the commodity. Obviously, so abstract a formula will require many mediating steps before it will connect to the actual phenomena, but such a requirement would hardly be peculiar to this part of the theory.¹

The formula employs Marx's well-known distinction between 'labour', which refers to the actual use of human creative powers in the process of production, and 'labour-power', the worker's potential for labour. It was through this distinction that Marx sought to clear up one outstanding anomaly in the Classical labour theory of value of Adam Smith and David Ricardo.² It enabled him to present labour as

¹Ben Fine and Laurence Harris, 'Controversial Issues in Marxist Economic Theory'. Socialist Register 1976 (London: Merlin Press): 141-78 and 'Surveying the Foundations'. Socialist Register 1977 (London: Merlin Press): 106-20. The discussion of the 'levels of abstraction' in Marx's theory, from the most abstract formulations to the concrete, occurs most commonly in connection with the famous 'transformation problem'.

²A recent discussion of Marx's theory of surplus-value in relation to Smith and Ricardo see Claudio Napoleoni, Smith, Ricardo, Marx: Observations on the History of Economic Thought (Oxford: Blackwell, 1975), especially pp. 69-73, 79-80.

the substance of value, while holding that the wage-relation between capital and labour also took place within the framework of the equal exchange, i.e. was a normal market relation. The 'secret' of the exploitation of labour, hidden within the form of equal exchange, was then explained as the surplus-value difference between the value created by labour for capital and the value paid by capital to hire the worker.

Marx's principal focus is capital in his theory of value. He analysed in great detail the mediating steps which carried him from the simplest conception of capital, as 'capital in general', to the more concrete interrelations of a multiplicity of competing, individual capitals.³ While an analysis of value relations affecting labour's side of the equation was developed more or less in parallel with the analysis of capital, it remained on the periphery of his main work. The undeveloped character of this area in Capital - wages, the value of labour-power and standards of consumption - is indicated by Marx's repeated postponement of a full treatment until his projected "Book of Wages" or, sometimes, to the "analysis of competition" (e.g., Capital Vol. III, p. 242). And yet what discussion there is to be found is not minimal.

The 'Book of Wages'

As R. Rosdolsky explains,⁴ in his lengthy exegesis of the relation between Marx's Capital and the earlier Grundrisse, much of the written

³Roman Rosdolsky, The Making of Marx's 'Capital' (London: Pluto Press, 1977), pp. 41-50.

⁴Ibid., pp. 57-63.

material which was intended to go into a separate 'Book of Wages' was actually brought forward and incorporated into Capital Vol. I as Part 6 on 'Wages'. In Part 6, Marx dealt with the relation between value of labour-power and wages (Chapter 19), time-wages and piece-wages as two forms of the wage (Chapters 20 and 21), and national differences in wages (Chapter 22). This sizeable fragment of a theory of wages links back to a preceding Chapter 6, 'The Sale and Purchase of Labour-power', in which Marx presented the basic framework of the wage as equal to value of labour-power, as a preliminary to his theory of surplus value. Further discussion of wages appears at various subsequent points in Capital.

To point out the main ones: In Chapter 25 of Volume I, where Marx connected capital's demand for labour to the accumulation process, he raised the possibility of rising wages as well as the more familiar 'immiseration' thesis. In Volume II, in connection with his presentation of the reproduction schema, Marx distinguished between wages as variable capital and wages as revenue for the workers and discusses the role of wages in the realisation of value for capital (Chapter 20). In Vol. III, he posited the equalisation of the rate of exploitation under the wages-system as a more or less realistic ceteris paribus condition for his analysis of the formation of a general rate of profit and the transformation of simple prices (or, values) to prices of production (Chapters 8 to 10) and discussed the effects of a general movement of wages on prices of production (Chapter 11). He included among the counteracting influences to his law of the tendency for the rate of profit to fall the possibility of temporarily depressing wages below the value of labour-power (Chapter 14). The contested issue of underconsumptionism makes its appearance in his analysis of crises of accumulation (Chapter 15). Finally, wages are brought into his

concluding discussion of revenues, classes and relations of distribution (Chapters 48 to 52).

Despite the mass of writing on the subject, Marx did not develop the theory of value on the side of labour in as systematic a manner as he did for capital. His treatment of the category of labour-power as a commodity like any other is viewed skeptically by a number of Marxists.⁵ The aim of this study will be to bring to light some of the difficulties which have been encountered in this area of Marx's theory of value and, hopefully, make some contribution to its modern development. This can hardly be done, of course, without running into the controversies surrounding his value theory as a whole, with their long history, regarding its interpretation and validity. Not only is it viewed from the outside as "metaphysical"⁶ or "unfalsifiable" (K. Popper); it is contested territory among Marxists as well. In addition to the 'abstract labour/neo-Ricardian' debate, which is a continuation of the dispute emerging in the early 1970s among Marxist economists in Britain between the so-called 'fundamentalists' and 'neo-Ricardians', an influx of French and Japanese work in Marxist political economy has entered the field. By my reckoning, there are currently five distinct avenues of development in the Marxist theory of value.

⁵e.g., Aboo T. Aumeeruddy et al., 'Labour Power and the State', Capital and Class No. 6 (Autumn 1978): 42-66; P. Harvey, 'Marx's Theory of the Value of Labor Power: An Assessment', Social Research, Vol. 50 No. 2 (Summer 1983): 305-44; S. Bowles and H. Gintis, 'Structure and Practice in the Labor Theory of Value', Review of Radical Political Economics, Vol. 12 No. 4 (Winter 1981): 1-26.

⁶Joan Robinson and John Eatwell, An Introduction to Modern Economics (London: McGraw Hill, 1973), p. 29.

Value Theory Controversies

The work of P. Sraffa (1960), which itself was intended as a critique of neo-classical orthodoxy in economic theory, was adapted for the formal mathematical presentation (and justification) of Marx's theory of value, notably by M. Morishima (1973). Morishima in the end rejects the traditional 'embodied labour' conception of the labour ^{theory of value,} proposing instead a more complex one. The critique of the labour theory of value is put even more strongly by I. Steedman (1978). He has taken the position that the labour theory of value proves to be redundant for the determination of prices and profit in a system of commodity production, when a formalisation based on Sraffa's work, not available in Marx's day, is applied.⁷

Two forms of debate have existed against this line of argument. First, there are the 'fundamentalists',⁸ so-called because they appeared to maintain the literal truth of Marx' formulation in all the main of areas of dispute, such as the transformation problem, the tendency of the rate of profit to fall, the theory of crisis, among others. In their view the principal error of the 'neo-Ricardians' was

⁷I. Steedman, Marx After Sraffa, (London: NLB, 1977), p. 57: "... Marx's various labour-time magnitudes are entirely derivative of the physically specified real wages and production conditions, these latter physical quantities being fully adequate to the determination of the profit rate and prices of production, it follows at once that the labour-time magnitudes are of no significance for that determination."

⁸Described over the whole range of issues by B. Fine and L. Harris, 'Controversial Issues in Marxist Economic Theory', Socialist Register 1976 (London: Merlin, 1976), pp. 141-78, with bibliography and Rereading Capital (London: Macmillan Press, 1979). They view the polarisation in terms of a one-sided neo-Ricardian emphasis on exchange and distribution vs the assertion of the primacy of production among the 'fundamentalists', as in D. Yaffe (1975). Many were criticising both positions (by 1976).

their failure to appreciate the importance in Marx's theory of the analysis of the form of social relations under capitalism.⁹ Their neglect of this aspect, and specifically of the concepts of abstract labour and the value-form in connection with the analysis of the commodity, reduces Marx's theory of value to the terms of Ricardo's (economic) theory.¹⁰

While this debate ranged over the proper interpretation and validity of Marx's original theory and the relevance of the Sraffian formal apparatus to the discussion of it, a kind of middle ground exists among writers who have continued to employ the mathematical apparatus of Sraffa to the development of a formalised labour theory of value, while rejecting the 'technicist' application of it of such 'neo-Ricardians' as I. Steedman.¹¹ From this direction emerges a continual stream of proposals for modifying the traditionally conceived labour theory of value in order to resolve some of the traditional problems associated with it. The literature in this area is extensive, much of it

⁹D. Yaffe, 'Value and Price in Marx's Capital', Revolutionary Communist, No. 1 (January 1975), p. 31: "What all these Ricardian type solutions have in common is a failure to grasp Marx's method in Capital and little or no understanding of the categories of value and price. Value and capital cease to have a social significance, to express, in fetishistic form, social relations under the capitalist mode of production."

¹⁰B. Rowthorn, 'Neo-classicism, Neo-Ricardianism and Marxism', New Left Review, No. 86 (July/August 1974), p. 76 and I. Gerstein, 'Production, Circulation and Value: The Significance of the "Transformation Problem" in Marx's Critique of Political Economy', Economy and Society, Vol. 5 No. 3 (August 1976): 243-291.

¹¹e.g., S. Bowles and H. Gintis, 'Structure and Practice in the Labor Theory of Value', Review of Radical Political Economy, Vol. 12 No. 4 (Winter 1981), p. 18: "Whereas the Sraffian approach treats the production matrix and the vector of labor entries as the technical conditions for the 'production of commodities by means of commodities' the labor theory of value fosters the conception of the production process as an ensemble of social practices."

appearing in the Cambridge Journal of Economics and the American Review of Radical Political Economics; by way of examples, various proposals have been devised for the problem of joint production (M. Morishima and G. Catephores, 1978), non-homogeneous labour (B. Rowthorn, 1974; S. Bowles and H. Gintis, 1977, 1981a, 1981b) and others, which involve modifications of or substitutes for Marx's solutions.

Meanwhile, there has been a shift in the nature of the defense of Marx's value theory categories among those who continue to emphasise the issues of methodology and interpretation, which were the mainstay of the 'fundamentalist' critique of 'neo-Ricardianism'. In effect, those who support the value-form oriented interpretation of the theory of value - the 'abstract labour' school - explicitly accept the neo-Ricardian critique of the 'embodied labour' version of the labour theory of value, but reject its interpretation of Marx's theory.¹² This interpretation undercuts the application to value theory problems of the standard Sraffian (embodied labour) formulas in which labour-time quantities are directly incorporated in the equations as representatives of value; whereby, two systems of valuation may be derived and compared - values defined as the quantities of labour directly and indirectly embodied in commodities and prices (or exchange ratios) under the condition of an equalisation of the rate of profit. In contrast to this, the 'abstract labour' approach holds that "neither the substance of value nor its measure have a form of representation which

¹²For a statement of the 'abstract labour' standpoint see Diane Elson, ed., Value: The Representation of Labour in Capitalism (London: CSE Books, 1979); especially, her own contribution, 'The Value Theory of Labour', p. 121; also, more recently, Simon Mohun, 'Abstract Labour and Its Value Form', Science and Society, Vol. 48 No. 4 (Winter 1984-85), p. 392.

is independent of the market."¹³

A parallel to the British 'abstract labour' approach has begun to appear recently in a steady stream of translations of French Marxist political economic writing, known as the 'regulation' approach and sometimes the 'Grenoble school'. It initially appeared in translation with M. Aglietta's A Theory of Capitalist Regulation (1979), with excerpts published in the New Left Review (1978) and a critical review by M. Davis (1978).¹⁴ The existence of a school with a common framework or approach to Marx's value theory is made clear by M. De Vroey (1984), who also links these two developments to the history of dual tendencies in Marxist theory between the 'economistic' (e.g. R. Hilferding, 1904) and the 'value form' (e.g., I.I. Rubin, 1928) interpretations.¹⁵ To be more specific, value is presented as the (internally contradictory) form of coordination of labour peculiar to a capitalist economy, and its sole mode of representation is through monetary prices. An important contribution of the Grenoble school in this connection is their attempt to devise an empirically realised formulation of value theory (M. Aglietta, 1979; M. De Vroey, 1981; J. Gouverneur, 1983). It is not clear to me what impact their empirically oriented formulation will have, particularly as some of those who have been engaged in the critical revision of the traditional labour theory

¹³S. Mohun, *Ibid.*, p. 388.

¹⁴M. Aglietta, 'Phases of U.S. Capitalist Expansion', New Left Review, No. 110 (July/August 1978), pp. 17-28; M. Davis, '"Fordism" in Crisis', Review, Vol. 2 No. 2 (Fall 1978), pp. 207-69; M. Aglietta, A Theory of Capitalist Regulation (London: New Left Books, 1979), translated from the 1976 French edition.

¹⁵"The abstract-labour version is characterized by a shift, from a technological to a social paradigm." (M. De Vroey, 1982, p. 40).

of value have since dropped all reference to value from their analyses.¹⁶ However, they will be of interest in the Anglo-American context, where an alternative formulation within the 'abstract labour' approach is lacking. Discussion here has concentrated mainly on the critique of traditional Marxist and neo-Ricardian 'embodied labour' conceptions of the theory of value.

Finally, I should mention, more for the sake of completeness than of direct relevance, the very recent appearance in translation of the Uno school of Japanese Marxist political economy, mainly through the publication of Kōzō Uno's Principles of Political Economy, originally written in 1964.¹⁷ The writings of K. Uno and his followers are similar to the 'abstract labour' approach in paying close attention to the value-form in Marx's work. They thus provide a point of reference from an independent tradition, but one which does not seem to have affected the Anglo-American value theory debates.

My own analysis of the category of the value of labour-power obviously concerns only a segment of Marx's value theory. While the ensuing discussion is situated on the contested terrain just described of the interpretation of value theory, it will not focus on those debates per se; rather, the focus of concern here is the extension of Marxist value theory to neglected sphere of consumption, for which the category of the value of labour-power provides the immediately

¹⁶Ibid., 'Obsolescence', p. 41 and 'Regulation Approach', p. 45.

¹⁷K. Uno, Principles of Political Economy: Theory of a Purely Capitalist Society (Sussex: Harvester Press, 1980). The rise of the post-war Uno school as an independent strand of Japanese Marxist political economy critical of the two traditional tendencies, orthodox communist (the Kōzaha school) and socialist (the Rōnōha), is described by M. Itoh (1980), pp. 11-46.

relevant link to the main body of the Marxist analysis of the capitalist accumulation process in terms of value relations.

The Commoditisation of Labour

For Marx, the wage-relation expresses the historical transformation of the labourer's existence into its specifically capitalist form. From this relation, viewed as the commoditisation of the wage-labourer, Marx derives his basic formula for wage-determination and the reproduction of labour-power under capitalism. Nevertheless, while analysing the relation between capital and labour as an exchange-relation, Marx is also aware that the wage-relation is both similar to and different from the relation of simple commodity exchange, which provides the general form of that relation.

In Capital Vol. 1, Marx singles out labour-power as a special commodity because its use is a creation of value, rather than a consumption of value. Under conditions of equal exchange, capital can only change its form from money ~~into~~ to some other usable commodity and vice-versa; it achieves no expansion of value through exchange alone unless it is at the expense of the other party. The availability of labour-power on the market is related by Marx to two general preconditions, which, as he says, are formulated theoretically, that is to say, in abstraction from the actual historical process which gave rise to the class of wage-labourers. The first condition is that the labourer be in a position to sell his labour-power to capital; that is to say, "he must be the free proprietor of his own labour-capacity, hence of his person."¹⁸ The sale of labour-power, however, will either be of

¹⁸K. Marx, Capital Vol. 1 (Harmondsworth: Penguin Books, 1976), p. 271.

limited duration and continually renewed or it will merge into the form of slavery, providing the basis for a slave mode of production. Hence, Marx derives a limit on the form of the wage-relation, which, as he notes, is enforced by law in various countries by means of legislation fixing the maximum length of labour contracts.¹⁹

The second precondition is the worker's freedom in the other ironic sense of possessing nothing to sell other than the ability to perform productive labour. The existence of a class of such labourers, separated from the means of production, is the end result of the protracted historical process, giving rise to the capitalist mode of production by undermining former ways of living - a process which could appear as a liberation from the domination of particular masters under feudal conditions. Their freedom is, thus, to be viewed as a historically determined lack of the possibility of providing for themselves. And insofar as the social organisation of the whole system of production ensures the reproduction of such a class of labourers, capital is assured of a supply of labour, which comes forth not on the basis of desire or willingness, but out of need. The form of the wage-relation, then, expresses both the labourer's autonomy and their dependence vis à vis capital.

The form aspects of the wage-relation are developed in more detail by Marx in the Grundrisse, where he gives a more dialectical treatment of the transition from simple exchange value to capital. The first presupposition is that capital and labour are independent forms, specifically different from each other, and brought into relation

¹⁹Ibid., p. 271 n. 3.

through exchange.²⁰ By 'specific difference' Marx refers to a number of features of the capital-labour relation which distinguish it from the simple relation of exchange, which is a symmetrical relation between the two parties to the exchange.²¹ The non-symmetry of the capital-labour relation takes the form of capital standing in relation to labour as exchange-value and labour standing in relation to capital as a use-value, but not vice-versa.²² This transformation of the relation of simple commodity exchange appears to derive from capital's drive to continually expand its own value. By the inversion of the moments of simple exchange between commodities and money (that is, from C - M - C to M - C - M') capital constitutes itself permanently as exchange-value, continually moving between its money and commodity forms (thus, ^{distinguishing} its interchange between money and commodities from other sorts of exchange relation).²³ A difficult argument, perhaps, but it does ground the distinction Marx wishes to make at a later point between the capital-labour relation and the purchase of labour in the form of a service (unproductive labour), which is not the same relation.

In simple commodity exchange, for both sides, once the exchange has taken place, what Marx refers to as the 'economic relation' comes to an end. In contrast, for the capital-labour relation:

²⁰K. Marx, Grundrisse (New York: Vintage Books, 1973), p. 266.

²¹The ensuing argument in Marx's 'rough draft' is somewhat obscure, but is pursued here because it sheds light on his analysis of the commoditisation of labour-power.

²²Ibid., p. 267.

²³"If we speak here of capital, this is still merely a word. The only aspect in which capital is here posited as distinct from direct exchange value and from money is that of exchange value which preserves and perpetuates itself in and through circulation." (emphasis his), Ibid., p. 262.

"Here the use value of that which is exchanged for money appears as a particular economic relation, and the specific utilisation of that which is exchanged for money forms the ultimate aim of both processes. Therefore, this is already a distinction of form between the exchange of capital and labour, and simple exchange - two different processes." (Grundrisse, p. 274)

On the one hand, as a matter of interest for the present discussion, is Marx's conception here of the labourer outside of the wage-relation as inhabiting a realm of the 'non-economic' and, conversely, a definition of the 'economic' as that portion of the sphere of human activities mediated through exchange. Thus, production for exchange is within the field of the 'economic'; production directly for consumption is not. On the other hand, the exchange between capital and labour initiates and extends the field of economic relations to include production. From this perspective, capital's endless process of accumulation can be viewed as the extension of capitalist economic relations, and in particular, the wage-relation over the whole field of social production. Or, in Marx's famous statement: "Accumulation of capital is therefore multiplication of the proletariat."²⁴

The exchange relation between capital and labour is conceived as an equal exchange, i.e., one in which capital derives no profit or excess value from the exchange per se. The price paid by capital for the labourer's commodity, labour-power, corresponds to its value. That value, as he also maintains in Capital, is determined "by the amount of objectified labour contained in it; hence, here, by the amount of labour required to reproduce the worker himself."²⁵ While this basic formula of the wage = value of labour-power is the major

²⁴Capital Vol. 1, p. 764.

²⁵Grundrisse, p. 282.

implication we will be concerned with, which Marx drew from the connection between the commodity-form and labour-power, it is not the only one he derived from the commoditisation of labour.

Marx also noted certain elements of autonomy which labour acquires under capital, which distinguishes the worker's position from other modes of production. The exchange-value with which the worker is paid being, in itself, the general form of wealth:

"... he becomes co-participant in general wealth up to the limit of his equivalent - a quantitative limit which, of course, turns into a qualitative one, as in every exchange. But he is neither bound to particular objects, nor to a particular manner of satisfaction. The sphere of his consumption is not qualitatively restricted, only quantitatively. This distinguishes him from the slave, serf etc." (Grundrisse, p. 283)

The fact that the worker under capital has money to spend gives him or her, as a member of the producing class, a role in the sphere of consumption - at least, the part which subsumed to exchange - which they did not have earlier in history, prior to the advent of capitalism. They become consumers, which "gives them as consumers. . . an entirely different importance as agents of production from that which they possessed e.g. in antiquity or in the Middle Ages, or now possess in Asia."²⁶

Marx is led by this to discuss a "dialectical irony" which appears as an aspect of their non-symmetrical exchange. In the moment of the exchange, it is the worker who is acquiring exchange-value, that is to say, the general form of wealth, while capital obtains the use-value, the right of disposition over the worker's labouring capacity; furthermore, beyond this, capital ends up with the wealth, while the

²⁶Ibid., p. 283. And Marx further notes parenthetically: "In the further development of capital the relation between consumption and production must, in general, be more closely examined."

worker ends up only with consumption. But reflection on the role of the form of exchange-value shows that for the worker this exchange-value only serves as a means of purchase towards consumption, so that it constitutes ^{not} wealth, as it does for capital, but "means of subsistence, objects for the preservation of his life, the satisfaction of his needs in general, physical, social. etc."²⁷ The difference in their starting points yields Marx an explication in terms of different exchange circuits: for the worker, starting with his labour-power commodity, the circuit is C - M - C, which is the form of simple commodity exchange; for capital, it is M - C - M, the accumulation of wealth.²⁸

Nevertheless, the access to exchange-value gives the worker at least formally some possibility of personal accumulation, i.e. through saving. He could withhold some part of what he is paid from general circulation. But here the basic formula (the law of value) comes into force. In the first place, it is inherent to the worker's position that:

"... the worker could make exchange value into his own product only in the same way in which wealth in general can appear solely as product of simple circulation in which equivalents are exchanged, namely, by sacrificing substantial satisfaction to obtain the form of wealth, i.e. through self-denial, saving, cutting corners in his consumption so as to withdraw less from circulation than he puts goods into it. This is the only possible form of enriching oneself which is posited by circulation itself." (Grundrisse, p. 284)

Besides self-denial in the form of hoarding, the worker could also exercise self-denial in the form of extra industriousness sacrificing any other existence to that of being a wage-worker. In this case, the possibility is "not posited in simple circulation."²⁹ Envisioning this

²⁷Ibid., p. 284.

²⁸Ibid., 295.

²⁹Ibid., p. 285.

kind of possibility of varying the wage earned for a given wage rate indicates that the regulation of the wage by value posited in Marx's basic formula is relative to a distribution, e.g. operates at the level of the average or the class; which is no different than what he posits elsewhere for his value categories, but distinct from the discussion of (transitory) variation between prices and values. His analysis of the function of piece-rate wages is an example of how individual differences in dexterity or effort produce a distribution of wage earned under a single rate, but the same possibility exists for time-wages, even for a fixed working day, if a worker works more days in a year, opts for overtime, or moonlights.³⁰ Under the conditions and wage levels prevailing in his time, Marx regarded either form - hoarding or extra work - as entailing a personal degradation to the "level of the Irish, the level of wage labour where the most animal minimum of needs, and subsistence appears to him [the worker] as the sole object and purpose of his exchange with capital."³¹

There are further limits (of a qualitative sort arising from the quantitative limits ^{31a}) implicit within the worker's exchange relation with capital. The second way in which Marx held that the law of value would come into force over the wage-relation is that if such practices extended beyond the exceptional worker to the all or even a majority, the savings would be a signal to capital that wages were too high (they were paying more than necessary to obtain

³⁰ Capital Vol. 1, p. 696: ". . . while in piece-wages, although the price of the labour-time is measured by a definite quantity of the product, the daily or weekly wage will vary with the individual differences between the workers, one of whom will supply, within a given period, the minimum of product only, another the average, and a third more than the average."

³¹ Grundrisse, p. 285.

^{31a} Ibid., p. 293.

labour-power) and a general reduction in wages would follow.³² Any simple application of Marx's basic formula for the wage, however, is qualified by his next observation that, in fact, workers are exhorted by capitalists to save in good times (so they can better endure a reduction in wages in bad times, and in any case insure themselves of a minimum standard of living). The reality of such 'prudence', Marx caustically noted, was the workers' abstention from "participation in the higher, even cultural satisfactions, the agitation for his own interests, newspaper subscriptions, attending lectures, educating his children, developing his taste, etc.,"³³ just at the point when these had become possibilities for them ; Marx provided here a striking image of what he thought the worker might do with even a modest level of means above subsistence.

Given that savings are a possibility, the wage-form is still posited as 'form-limited', differentiating it from the wealth of the capitalist class. If it is supposed that workers saved, even deriving a modest level of interest on them in a bank, the generally low level of their savings would amount to only a redistribution of their consumption; possibly a better one vis à vis good and bad times, but not an accumulation of wealth.³⁴ The phenomenon of savings does, however, raise the question of when a form-limit would be considered to be transcended. While developments within advanced capitalist societies, such as pension funds, profit-sharing schemes, employee

³²Ibid., p. 286. Furthermore, such general saving would imply a restriction on consumption which would rebound, in turn, on the level of production.

³³Ibid., p. 287.

³⁴Ibid., p. 286.

stock option plans, etc., (not to mention workers cooperatives, which existed even in Marx's day) are only modifications of the wage-relation, yet in terms of form they may be viewed as blurring the boundary line between capital and labour. In a form-perspective (one concerned with the social forms of class relations) they are of theoretical interest even when their practical significance is small. A transcendence in form is not necessarily a transcendence in substance, from the point of view of the relation of capital and labour overall, as Marx shows in the obvious case of an individual successfully transcending the limits of a worker's existence and employing their accumulated savings as capital. While the individual might thereby move from the position of labour to that of capital, the relation itself would not be surpassed.³⁵

On the issue of workers' consumption, Marx observed that capital actually had contradictory interests. An individual capital might desire that its own workers be prudent and save against hard times, but its relation to all other workers would be as potential consumers, ie. buyers. Thus, "in spite of all 'pious' speeches he therefore searches for means to spur them on to consumption, to give his wares new charms, to inspire them with new needs by constant chatter, etc."³⁶

After exploring various possibilities of the form of exchange-value in the hands of the worker, although only in very general terms, Marx finally goes back to what is perhaps a prior condition: the separation of labour from property. Specifically, of course, the

³⁵Ibid., p. 288.

³⁶Ibid., p. 287.

property in question are the means and objects of production, without which labour is reduced to a state of potentiality inherent to the bodily existence of the labourer. We leave aside Marx's dialectical treatment of this state of affairs whereby capital and labour are each the other's negation (capital as 'not-labour' confronting labour as 'not-capital'), a condition he derived from a splitting of the concrete totality or unity of the productive act. We wish only to note the relation of the separation of labour from the means of production to this separation of the two moments production and consumption into two independent spheres of the capitalist economy, whose inherent unity is then mediated by exchange.³⁷

From this negative definition of what labour is (which assumes labour's internal unity with capital, in contrast to a positivist methodology) Marx derived two of the attributes of labour, which are preconditions for their engagement in the exchange relation. First, there is the "absolute poverty" of labour,³⁸ which has the meaning of a lack of possession of the material conditions for productive activity through which labour makes itself real; and without which, by implication, labour is reduced to a "pure subjectivity", to use Marx's term, deprived of the ability to sustain itself. Obviously, describing labour's dependence on capital, Marx formulates this in terms of an internal relation between the two mutually-determined social forms. Second, labour becomes "labour pure and simple, abstract labour,"³⁹ in

³⁷Ibid., pp. 85-6. We return to these ideas as a starting point for treating the concept of the 'sphere of consumption' in the context of the theory of value.

³⁸Ibid., p. 296.

³⁹Ibid. p. 296.

the anonymity of the market place, which Marx interprets in terms of a relation, or attitude, of indifference to the other's particularity, by which he seems to mean the reduction of the social relation to simple economic one. At the same time, the development of capitalism also creates the abstraction of labour in the other sense of reducing labour to labour in general, simplified labour, etc.

To summarize this section, the concept of the commoditisation of labour underpins Marx's analysis of the wage relation. While the law of value of the commodity implies the basic formula of the wage = value of labour-power, there are also other important form-determined aspects, or attributes, of the wage-relation in Marx's theory of value. Aspects of the wage-relation such as the (form-)limited possibility of worker savings or the reaction of consumption on production are as much features of the wage-relation as the relation to the value of labour-power, on which we focus. These other aspects will re-enter the discussion as we take a closer look at Marx's central concept for the analysis of wage determination, the value of labour-power.

Determination of The Value of Labour-Power

In Capital Vol. 1 Chapter 6 'The Sale and Purchase of Labour-Power', after discussing the conditions under which labour-power appears as a commodity on the market, Marx poses the question of its value:

"This peculiar commodity, labour-power, must now be examined more closely. Like all other commodities it has a value. How is that value determined?" (Capital, Vol. 1, p. 274)

Marx immediately presents his classic formula:

"The value of labour-power is determined, as in the case of every other commodity, by the labour-time necessary for the production, and consequently also the reproduction, of this specific article. In so far as it has value, it represents no more

than a definite quantity of the average social labour objectified in it." (Capital Vol. 1, p. 274)

The attribution of a value to labour-power appears to be unargued here or elsewhere. While it appears that the wage relation subjects the worker to the commodity-form, with labour-power as the commodity and the wage as its price, is it necessary or correct to claim that labour-power has a value? The ensuing text does not directly answer this question; rather Marx proceeded immediately to specify the elements that enter into the determinants of its value.

Marx identified three moments in the production and reproduction of labour-power through which the value of labour-power is constituted: the maintenance of the worker, the reproduction of the next generation, and the formation of skilled labour-power. On the basis of these a more or less standard account of the value-determination of the wage exists in the Marxist literature. At the same time, each one of these 'moments' has provided an area of controversy over Marx's theory of value from his day to the recent resurgence of interest in the 1970s. His basic conception^{of} how the value of labour-power is constituted can be considered in terms of the first of these 'moments', leaving discussion of the problems characteristically associated with the other two 'moments' to later.

The Maintenance of Labour-Power (The First Moment)

The discussion of the first moment of the process will provide the context in which initial consideration of the problems in Marx's value-determination formula will be taken up. The formula is the one already cited above. In it, an element of necessity forms a distinct thread maintaining a relation of correspondence among the terms. It runs backwards from the wage to the value of labour-power to the

worker's consumption. Between the wage and the value of labour-power, the regulative relation is the same as that between any commodity price and its value. In the formation of the value of labour-power, necessity takes the guise of the socially necessary labour-time for the production of labour-power. And in the process of production, or rather, reproduction of labour-power, a certain quantity of the means of subsistence, a term which already carries connotations of the worker's standard of life, is posited as the required quantity without which a deficit will exist in the reproduction or maintenance of labour-power (without actually stipulating at this point that consumption is in some way held down to this level).

Since it appears that for Marx the subsumption of labour-power to the exchange relation itself implies labour-power's status as a commodity with a value regulating its price (the wage), we proceed to examine in more specific terms how he thought this result comes about. In particular, how did Marx relate the material process of the reproduction of labour-power to its possession of the value attribute?

Marx's conception of consumption as a form of production, which provides the ground for assimilating it into the net of value relations, can be traced back to his view of the general relation between production and consumption, which may be found in his introductory comments in the Grundrisse, where he speaks of them as two aspects of the life process of both the individual and society.⁴⁰

In these somewhat cryptic passages, Marx is, in fact, criticising certain "commonplaces" of the political economists of his day about the identity, from a social point of view, of production and consumption -

⁴⁰K. Marx, Grundrisse (New York: Vintage Books, 1973), p. 91-4.

ironically attributing the Hegelian construction to them. He chastises them for failing to distinguish between a truth of society as a whole and a truth regarding the individual within society, but affirms the fundamental interdependence of production and consumption. By incorporating these comments from the Grundrisse, I believe we can assess more clearly Marx's use of the concept of the value of labour-power as an intermediate link between the spheres of production and consumption.

Because of the materialist basis of his thought, Marx describes the interrelation of production and consumption in practical terms, which if dialectically conceived, must be conceived as truths about a material life process. Thus, for him, the ideas of the economists regarding the dual nature of production and consumption fall into two natural groups, which he refers to as "identities".⁴¹

First, he considers their duality as the simultaneous creative and destructive aspect of any act or process of production in consuming its means and materials of production and similarly for consumption by any living system in that it is also the production, or reproduction, of itself.

The second form of identity between production and consumption has them materially separate but mutually dependent processes. Instead of an immediate identity between them, he refers to each "mediating the other", as when "production creates the material, as external object, for consumption; consumption creates the need as internal object, as aim, for production."⁴² Marx found this relation

⁴¹Ibid., p. 92-3.

⁴²Ibid., p. 93.

occurring in many different forms in economic thought. He finds a third identity in the discourse of the economists which converts the external relation between production and consumption in the second identity into an internal relation, by which he seems to mean a mutually constitutive or form-determining relation between them. Production is meaningfully an act of production only if consumption completes the process by consuming the resulting product, an independent material form; conversely, consumption is formed or shaped by production by determining, through the product, the specific manner of consumption as well as being a stimulus to consumption. He cited as examples the relation of demand and supply and of objects and needs. The inner relation goes beyond the objective aspect - the product as the object of consumption, affecting the manner consumption - and penetrates to the heart of the subjective aspect by forming or defining the need, which the act of consumption aims to satisfy. Speaking of needs on the previous page, he says:

"Production not only supplies a material for the need, but it also supplies a need for the material. As soon as consumption emerges from its initial state of natural crudity and immediacy - and, if it remained at that stage, this would be because production itself had been arrested there - it becomes itself mediated as a drive by the object. The need which consumption feels for the object is created by the perception of it."
(Grundrisse, p. 92)

From which he proceeds to the example of the relation between art object and the creation of "a public which is sensitive to art and enjoys beauty."

There is clearly an emphasis on the unity of production and consumption in the discussion up to this point:⁴³ A distinction of form

⁴³"The important thing to emphasize here is only that, whether production and consumption are viewed as the activity of one or of many individuals, they appear in any case as moments of one process, in which production is the real point of departure and hence also the predominant moment." Ibid., p. 94.

is to be made between the individual and society. In the individual, although a separation of the two moments of production and consumption exists to the extent of the one preceding the other in the praxis of a single subject, nevertheless, what is produced is immediately available for consumption and consumption is the immediate aim of the productive activity. At the social level, on the other hand, one observes a production "in society", which is *not* accompanied by the immediate appropriation of the product; rather, production and consumption are separated into spheres of activity, mediated by distribution, which determines "in accordance with social laws what the producer's share will be in the world of products."⁴⁴

The two general questions which we wish to pose, against this general background, regarding the way in which Marx conceptualised the value aspect of the wage-relation are first, the question of how we are to understand his value-determination formula. More specifically, what is the relation of the consumption process to labour-power's wage/value relation? Second, we wish to raise a question concerning the actual extent of the commoditisation of subsistence and the process of reproduction and the significance this has for a value-form analysis.

In conceptually isolating the first moment of the determination of the value labour-power, its 'production', through the simplest, most general material presupposition relevant to the case - the preservation of the labourer's existence from one day to the next - Marx drew on the first duality between production and consumption described above, which might be regarded as a feature of any practical activity

⁴⁴Ibid., p. 94.

(praxis). The existence of the labourer is connected to an activity of consumption which is to be conceived as simultaneously a self-productive activity. The 'production' of labour-power is, thus, not merely an analogy grounded in the commodity-form, but draws on a general truth concerning natural, living processes:

"Consumption is also immediately production, just as in nature the consumption of the elements and chemical substances is the production of the plant. It is clear that in taking in food, for example, which is a form of consumption, the human produces his own body. But this is also true of every kind of consumption which in one way or another produces human beings in some particular aspect. Consumptive production." (Grundrisse, p.91)

Consonant with this picture of the material life process, the first step in describing the 'production' of the commodity labour-power is to set a kind of naturalistic baseline in the needs of the body. As a living being, the worker is materially consumed in the process of performing labour for capital - even consuming itself while waiting for orders. The corresponding process of the restoration of the worker's labouring capacity is conceived in equally material terms as the means of subsistence required for replacement of "a definite quantity of human muscle, nerve, brain, etc." expended in a day's work and the satisfaction of the worker's natural needs to maintain their "normal state as a working individual" in terms of health and strength.⁴⁵

In thinking of this subsistence requirement, of course, Marx goes beyond the level of the natural needs. He also considers their socially-determined form of satisfaction, which imply historical and cultural differences between societies in the subsistence standard:

"His natural needs, such as food, clothing, fuel and housing vary according to the climatic and other physical peculiarities of his country. On the other hand, the number and extent of his so-called necessary requirements, as also the manner in which they

⁴⁵Capital Vol. I, pp. 274-5.

are satisfied, are themselves products of history, and depend therefore to a great extent on the level of civilization attained by a country." (Capital, Vol. 1, p. 275)

And this is held to make labour-power different from other commodities in that the determination of its value contains "a historical and moral element."⁴⁶

As a side comment, if this formulation is taken literally as a means to distinguish labour-power as a commodity from all other commodities, it seems deficient on reflection. Insofar as some standard of acceptability is attached to any commodity, one could say that a "historical and moral element" enters into the determination of their value. So, what is the distinction Marx is making? The most obvious answer is that Marx recognises a differentially subjective aspect in the case of labour-power, which must take the form of labour-power uniquely (as a commodity) having an interest in its own standard of production (reproduction); otherwise, no distinction between labour-power and other commodities is effected through Marx's appeal to the "historical and moral element." If the point seems subtle, it does introduce an intended contrast with the passivity of the labourer which an unreflective reading of the value-determination process might suggest.

Returning to the discussion of the subsistence characterising the labour-power's reproduction requirement, as soon as discussion departs from the naturalistic baseline, which forms Marx's starting point, the link to the element of necessity on that basis becomes attenuated; vagueness threatens to undermine the entire conception as one moves from the stringent core of natural needs - evoking the emaciated

⁴⁶Ibid., p. 275.

image of dire necessity - and proceeds farther into the realm of socially and historically relative needs without some criteria to indicate the boundary line between need and superfluity. Marx gives little indication of what further criteria he would use to distinguish consumption which forms a part of the subsistence necessary for the reproduction of labour from that which is not. He seems content to note only that, while varying according to place and historical period, the standard of subsistence may be taken as a given.⁴⁷ As a working assumption it might be considered fairly reasonable for his time, to the extent that wages were generally low and the standard of living of the workers oscillated around a fairly stable norm. Under more advanced capitalist conditions, where the standard of life is much higher and generally rising over long periods, either other considerations, based in the capital-labour relation, come into play or the value-determination formula would have to be considered dissolved by the development of a different dynamic within capital's accumulation process, as some believe.⁴⁸ The rejection of his value-determination formula for labour-power, which might even continue to be held realistic for the conditions of capitalism in the mid-nineteenth century, would not immediately imply the counterthesis to Marx's abandoned 'immiseration' thesis - twentieth century capitalism as the 'affluent society'. We will consider the matter by studying the various aspects of the relation of labour to capital which enter into Marx's formula.

⁴⁷Ibid., p. 275.

⁴⁸cf J. O'Connor, Accumulation Crisis (New York: Basil Blackwell, 1984), p. 154 or P. Harvey, 'Marx's Theory of the Value of Labor Power: An Assessment', Social Research, Vol. 50 No. 2, (Summer 1983), pp. 305-44, who both suggest a reconceptualisation of the concept of the value of labour-power.

Since the natural needs do not, in the end, define the actual level of consumption which corresponds to his value-determination formula, how are they germane to the discussion? Agnes Heller, who offers the only extensive investigation available of Marx's concept of need, argues that the reference to the 'natural needs' is a carry over from the philosophical anthropology of his earlier writings. While she would maintain that a critical stance towards society requires an independent standpoint regarding needs, the 'natural needs' element - conceived as something to which social needs are added on - is not the appropriate conception.⁴⁹ She suggests that it would square better with his implicit theory of need as a socially-produced structure of all forms of need to consider the 'natural needs' as a limit concept.⁵⁰ Below this limit, the mere physical existence of the labourer becomes a problem and a goal of activity. Marx himself seems to approach the problem in this way later in Capital, although again no theory of needs is spelled out by him.

"In this respect they [wages] are governed by a natural law; their minimum limit is given by the physical minimum of means of subsistence that the worker must receive in order to maintain and reproduce his labour-power; i.e. a definite amount of commodities. . . . The actual value of his labour-power diverges from this physical minimum; it differs according to climate and the level of social development; it depends not only on physical needs but also on historically developed social needs, which become second nature." (Capital, Vol. III, pp. 998-999)

Even at the limit, the natural needs are not free of historical and social determination. Aside from their inherent variability arising from differences in natural conditions (e.g. climate), the level of social

⁴⁹Agnes Heller, The Theory of Need in Marx (London: Allison & Busby, 1974), p. 27.

⁵⁰*Ibid.*, p. 32.

development also reflects back on needs naturalistically assessed. Thus, against any idea of determining some universal or general requirement within existing levels or standards of life (employing universalisable measures such as kilograms and calories per day), one can think of many kinds of socially-determined differences in human physiology, such as thresholds of pain and discomfort, the relation of nutritional requirements to body size, etc., which would return such an analysis to the realm of historically particular societies.⁵¹ Similarly, the means of satisfaction of such needs combine natural with social determinants, as in the historical development of the potato as a dietary staple.

In Marx's formulation of subsistence there is both a fusion of the social with the natural in the form of the satisfaction of such needs as well as the addition of social needs above and beyond this. When this conception of the form of the needs in question is combined with his conception in the Grundrisse of the objects determining role in the form of needs, the terrain of the discussion of needs must shift from the idea of necessity and subsistence grounded in a naturalistic assessment of physical limits to the composition of subsistence in terms of the cultural objects which satisfy them. Where the object embodies necessity in the narrow, natural needs sense, it does so no less when the socially-determined elaborations relating to the manner of their consumption are included, although subsistence must then be represented in terms of normative standards of adequacy. This point

⁵¹"A man today requires 3500 to 4000 calories a day if he belongs to a rich country and a privileged class. These levels were not unknown before the eighteenth century. But they were less frequently the norm than today." F. Braudel, Capitalism and Material Life 1400-1800 (New York: Harper & Row, 1973), p. 87.

concerning the social-determination of subsistence applies even more forcefully, obviously, where the secondary modification is not based in an original, natural need, although these in turn can root themselves in the human psyche to such a degree that, as need, they are no less compelling than the natural needs and the corresponding deprivation just as palpable. Examples of these are the classically ambiguous 'necessities' in even the nineteenth century worker's standard of living, tobacco and alcohol.⁵² The clue to how these items are includable in the requirements for the reproduction of labour-power are indicated only in a general way by Marx's reference to their depending "on the conditions in which, and consequently on the habits and expectations with which, the class of free workers has been formed."⁵³

Thus far we have been examining the relation posited by Marx in his value-determination formula between the wage and the concept of the necessary subsistence requirements in purely use-value terms. It seems fairly obvious that this line of argument, up to the point at which the satisfaction of a desire is not recognised as a normal need, that is to say, one whose corresponding lack would be socially recognised as a wrongful deprivation, shifts the balance in the composition of subsistence towards the 'historical and moral element', in the form of the "habits and expectations" defended by the workers

⁵²Capital Vol. 2, p. 479: "This whole subdivision [Dept. II] can be classified for our present purpose under the heading: necessary means of consumption, and in this connection it is quite immaterial whether a product such as tobacco, for example, is from the physiological point of view a necessary means of consumption or not; it suffices that it is such a means of consumption by custom."

⁵³Capital Vol. 1, p. 275.

themselves. What would then be at stake in the struggle over living standards might better be interpreted in terms of the expansion (or contraction) of the sphere of needs-objects relations mediated through exchange within the structure of everyday life. This expansion would consist both of the destruction of older modes of production (and consumption) as well as the expansion of the scope of the worker's life and experience, implying the historical development of the worker's life as a form of human existence - along the lines, in effect, of Marx's 'philosophical anthropological' concept of true wealth as the human being "rich in needs."⁵⁴ If only a partial and distorted realisation of that ideal can be derived from a commodity-based mode of consumption, because, for example, needs are manipulated for profit,⁵⁵ nevertheless an enrichment of life, or at least consumption, within the framework of the commodity-form, is implied by the immense expansion of the level of material wealth, which even Marx foresaw as a possibility within capitalism.⁵⁶ Only a sketch of one element is being suggested here, a dynamic of needs, which concerns the question of how new forms of consumption are more easily taken up than surrendered. Scarcely adequate, it only aims to make the existential point that a newly discovered need (let us say, one not even entertained earlier for financial reasons) is an alteration of the

⁵⁴K. Marx, The Economic and Philosophic Manuscripts of 1844 (New York: International Publishers, 1964), pp. 144. For a discussion see A. Heller, op. cit., pp. 38, 44.

⁵⁵Economic and Philosophic Manuscripts, p. 147. Actually, in the heated rhetoric of his early writing, this phenomenon was an aspect of the polarisation of society into an impoverished proletariat and the moneyed bourgeoisie and its customers:

⁵⁶Grundrisse, p. 409 and elsewhere in his writings.

person, that is, the subject whose needs are one definition of who or what they are. As new needs are cumulatively incorporated into the habit and custom of normal life, retrenchment from them implies real losses and not merely abstinence from the superfluous. In this connection, A. Giddens makes a very suggestive observation affecting the subjective dynamic of needs which we are considering here: the subjectively experienced 'ontological' threat associated with having to 'move down a peg' in one's standard of life. His observation concerns the importance of the routinisation of social life (for which the wage pays the bills) for the formation of the human personality, which he suggests should be conceptualised in terms of a internal stratification (between the conscious and the unconscious), "in which human wants are regarded as hierarchically connected, involving a basic security system largely inaccessible to the conscious subject."⁵⁷

It may appropriately be asked whether the concept of the necessary subsistence requirement can carry any explanatory weight once it is so clearly variable and relative. A closer examination of the detail and structure of the relation between wages and consumption is intended as a part of the present study with a focus on the forms and extent to which the pressures of practical necessity can reasonably said to be structured into ordinary patterns of consumption in advanced capitalist conditions. One consequence we would like to take note of when the average material standard of life associated with the wage has risen to this extent is the distance introduced between the average wage and the poverty level. While defining and

⁵⁷ A. Giddens, Central Problems in Social Theory (London: MacMillan, 1979), p. 123 and 128.

assessing the extent of poverty is also problematic,⁵⁸ involving its own issues of social determination, it more obviously represents life at the level of necessity. The existence of poverty and the range of possible levels in the standard of life which correspond to the scale of wage differences point to a difference in kind or form of necessity involved. In the value-determination formula, except in very low wage employments, necessary subsistence would not be a deprivation concept in the material sense of poverty. (Poverty of the spirit associated with the commoditisation of one's existence under capitalism would be another issue.) And to the extent the concept can be used at all, it must be used in a differentiated way.

To allow for variability within the range between poverty and the standard of life associated with a high wage the value-determination formula would have to admit a graduated system of relations between wages, values of labour-power and consumption (interpreted as the subsistence requirement for the reproduction of labour-power). The theoretical possibility of such a schema is already posited with respect of national and regional differences of this sort.⁵⁹ Such variability would have its most natural interpretation as the result of an uneven process of historical development in the capital-labour relation of different segments of the working class. Innumerable factors would be involved in the setting of wages, e.g. the balance of power in trade union struggles, short-term scarcities of given types of labour, etc.. Insofar as these wage differentials settle

⁵⁸G. C. Fieghen et al., Poverty and Progress in Britain, 1953-73 (Cambridge: Cambridge University Press, 1977), p. 4.

⁵⁹By country: Capital Vol. 1, p. 701; by industry within England, Theories of Surplus Value Part II, p. 17.

into some relatively stable pattern of 'going rates' for given types of work, the possibility would exist for the formation of customary standards of living at very different levels. One result of this process would be the phenomenon of simultaneous, and even joint, trade union struggles to defend traditional prerogatives (wage rates and benefits) carried on at very different wage levels, yet on the common ground that real needs are at issue in defending existing standards of living or in demanding a rise in wages in an inflationary period.

The idea of the 'necessary wage', determined in the market for labour, is actually a double entendre. So far we have considered necessity on labour's side of the exchange-relation, where it corresponds to a certain level of subsistence. From this point of view, the wage is held down to the worker's level of necessity, which is defined relative to a set of human needs. The downward pressure derives from capital's side of the exchange-relation, since for capital the wage represents a cost of production which it has an interest in reducing wherever possible. In the value-determination formula, the same wage may represent the necessary wage from capital's viewpoint, but in a different sense of the term 'necessary'. In the second case, it is the wage which capital must pay in the market to obtain labour-power. Although the two are conceptually distinguishable, they are also connected. The ceiling from labour's point of view is the floor from capital's. The level of the wage, which we are interpreting within the value-determination formula, as the level of necessity down to which labour finds capital able to hold the wage (because workers compete for jobs) is also the level below which capital would find itself short of labour (in relation to other capitals). The distinction might even be given practical force if applied to the concrete distinction between what labour-power is individually paid (gross or

net wages) and the greater figure of the cost of labour to capital, which includes not only items of collective provision for the workers within a firm, e.g. a group health insurance scheme, but also incidentals, such as the costs of hiring. Such a modification, however, could be probably incorporated into the the value-determination formula. Dropping the use of 'necessity' in the first sense, on the grounds of its weakened force due to the general rise in living standards, say, would be a different matter. The whole sense of the value-determination formula would then be altered. The value-relations might formally remain the same, as we will see below, but the way in which these serve to interpret the determination of the wage level would be quite different. The difference would lie in the implied social relations. Rather than representing the wage/value of labour-power equation as a set of objective reproduction requirements, it would^{be} viewed as expressing the result of pitting a self-valuation on the side of labour against that of capital.

Uncoupling the two sides of the concept of necessity, allowing for^a more liberal interpretation of the significance of the wage level on labour's side, would drop the theory back to a more basic level of necessity in the wage relation - labour's a priori dependence on capital. It is an idea expressed by Marx himself in Capital when he speaks of a rise in the price of labour only "loosening somewhat the length and weight of the golden chain."⁶⁰ For which, he offers the interpretation that:

"Instead of becoming more intensive with the growth of capital, it's relation of dependence only becomes more extensive, i.e. the sphere of capital's exploitation and domination merely extends with its own dimensions and the number of people subjected to it . . ." (Capital Vol. 1, p. 768)

⁶⁰Ibid., p. 769.

In this guise, the institution of the wage-relation and its extension over the field of society, both in numbers of workers and the proportion of their consumption, may be viewed as the historical channelling or conversion of natural and social, individual and communal, necessities into a specific form of dependence. The accumulation of capital, in effect, represents a colonisation of former modes of life, which become the residual 'sphere of consumption' outside 'the economy' (capital's sphere of production), and this takes place through the extension of the wage-relation. With the commoditisation of the worker's mode of life, the wage-relation is secured to the worker's motivation by tapping the specifically capitalist form of necessity, as a whole population is drawn in to the need for money. Insecurity makes necessity an active element of the wage-relation on labour's side. Thus, while capital is reciprocally dependent on labour to achieve its aim, the social tie is basically a market one and not to the particular labourer; so that necessity is an element of labour's motivation, whatever the level of the wage. A loss of employment immediately reveals what a generous wage-level and a long duration of employment may obscure - the 'moment' or element of absolute necessity which is covered by the wage-relation. Of course, the relation is modified by the welfare provisions of the state and the like, but what is primary and secondary in this is clear enough. Besides, the coverage is neither necessary nor complete as recent experience in the United States shows with respect to the dire poverty of some long-term unemployed who have fallen into the class of homeless people.⁶¹

⁶¹"Jobless scratch for survival in high-tech era," Los Angeles Times, Dec. 30, 1984.

The effect of retaining only this concept of necessity incorporated from the bottom as it were, rather than at the top, only supports an interpretation of the wage's function as provision of the subsistence requirement in a general sense, without accounting for the level of the wage. 'Subsistence' would not be distinguishable from consumption, in contrast to the value-determination formula, in which the wage is interpreted as above or below a determinate value when consumption lies above or below the worker's level of necessity.

The Form of Valorisation (The Cost of Production Thesis)

The maintenance of labour-power needs to be considered more specifically as a constituent moment in the value of labour-power. We have so far only considered the use-value aspect in relation to the worker whose consumption is governed by the exchange relation between capital and labour. Since we already know that for Marx the subsumption of labour-power to the exchange relation implied its status as a commodity with a value regulating its price, the wage, we may proceed to examine in more specific terms how he thought this result came about; in particular, how did Marx relate the material process of the reproduction of labour-power (restricting the discussion to the day-to-day renewal of the individual worker) to its possession of the characteristic of having a value?

The general formula, following Marx's steps in Capital Vol. 1, is to posit the identity of the value of labour-power and the value of the commodities which constitute the subsistence requirement, defined in use value terms. The more specific understanding of this that we are after is the nature of the valorisation process, that is to say, the basic value relationship prior to considering modifications such as

skilled labour, which relate to the differentiation of the category of labour-power. Thus, the question is how Marx saw the value of labour-power constituted?

Marx derived the value which he attributed to labour power as a commodity from the commodities which make up the worker's subsistence. As a commodity, then, labour power is clearly placed in the unique position of not being a produced commodity (in a capitalistically organized production process). It is subject to a distinct process of reproduction, of which day-to-day maintenance and generational reproduction were noted as two of its moments. The value aspect of this reproduction process as conceived by Marx entailed a coincidence of the values represented by the wage and the bundle of commodities which constituted the worker's subsistence and expressed in the idea of the value of labour power. It appears as if the value of the consumption commodities, constituted by the socially necessary labour-time involved in producing them, are somehow simply 'transferred' into the commodity labour-power to constitute its value. It is a peculiar transfer. In the capitalist production process, as Marx analysed it, commodity values are constituted by the labour directly performed in production which simultaneously transfers the value of the means of production consumed in the process into the commodity. For labour-power there appears to be no value-creating 'labour of maintenance', only this 'transfer' of value, accounted as the socially necessary labour-time required for its maintenance, on the grounds of its correspondence to the necessary consumption.

Of course, in so far as consumption is itself a form of practical activity, there exists labour in its general sense which is not accounted as value even if it must be regarded as necessary to the formation (maintenance) of the commodity, labour-power. It does not

necessarily follow that this is an oversight on Marx's part, i.e. that he should have included it in the value of labour-power. His analysis, aimed at accounting for the existence of surplus value in a capitalist production process, is not primarily concerned with the nature of the consumption process, although it must be included as a moment in the whole process of social reproduction.⁶² And for the capitalist process of production, in particular, he sees the 'individual consumption' of the working class as:

"... the reconversion of the means of subsistence given by capital in return for labour-power into fresh labour-power which capital is then again able to exploit. It is the production and reproduction of the capitalist's most indispensable means of production: the worker. The individual consumption of the worker . . . remains an aspect of the production and reproduction of capital, just as the cleaning of machinery does, whether it is done during the labour process, or when intervals in that process permit." (Capital Vol. 1, p. 718)

The question is, however, the extent to which the form of the consumption process - the 'individual consumption' of the worker (and others) - is to be subsumed under the theory of value describing the capitalist form of the process of production; for, while he held it to be integrally related, Marx also clearly recognised a degree of autonomy in the consumption process:

"The maintenance and reproduction of the working class remains a necessary condition for the reproduction of capital. But the capitalist may safely leave this to the worker's drives for self-preservation and propagation." (*Ibid.*, p. 718)

For the aspect of consumption, then, either an extension of the theory is needed to subsume the phenomena of the sphere of consumption under the value categories or a kind of boundary line between value and non-value phenomena must be accepted with the introduction of forms peculiar to the sphere of consumption (and the reproduction of

⁶²Capital Vol. 1, p. 711.

labourer). The more immediate topic to consider before taking up that question is to understand the form of the valorisation process as given by Marx.

Although Marx's formulation likens labour power to other commodities in having a value which regulates its price, labour-power has a peculiar form of valorisation - the way in which the value of labour power is constituted. The peculiarities of the value of labour-power emerge most sharply when the various formulations Marx employed, and appears to treat as equivalent, are compared under the lens of a traditional interpretation of the labour theory of value applied with a strict logic. We cite for this purpose P. Harvey's recent critical assessment of the concept of the value of labour-power.⁶³ P. Harvey detects three logically distinct formulations, which Marx evidently regarded as equivalent. The first of these verbally extends the labour theory of value to labour-power, defining its value as "the labour-time necessary for its production."

"The value of labour-power is determined, as in the case of every other commodity, by the labour-time necessary for the production, and consequently also the reproduction, of this specific article. In so far as it has value, it represents no more than a definite quantity of the average social labour objectified in it." (Capital Vol. 1, p. 274)

The second formulation arises when Marx proceeded to further define this quantity by reference to the worker's subsistence requirement:

"For his maintenance he requires a certain quantity of the means of subsistence. Therefore the labour-time necessary for the production of labour-power is the same as that necessary for the production of those means of subsistence; in other words, the value of labour-power is the value of the means of subsistence necessary for the maintenance of its owner." (Capital Vol. 1, p. 274)

⁶³P. Harvey, "Marx's Theory of the Value of Labor Power: An Assessment," Social Research, Vol. 50 No. 2 (Summer 1983): 305-44.

This second formulation, which Marx made the most use of, recalls the classical cost-of-production theory of Adam Smith and Ricardo, with the category of labour-power substituted for labour.⁶⁴ The distinction between the two formulations is brought to light in the following way by P. Harvey: If only the value of the commodities consumed are counted towards the value of labour-power, then only 'dead' or 'indirect' labour enters the valorisation process. All forms of direct labour involved in the reproduction of labour-power, the labour involved in the consumption process proper, is ignored.⁶⁵ P. Harvey traces an ironic progression in the history of the domestic labour debate around just this point. The debate progressed from attempts to incorporate domestic labour, which is involved ⁱⁿ the care and maintenance of labour-power, in a consistent 'socially necessary labour-time' formulation (M. Dalla Costa, 1972; W. Seccombe, 1973 and 1974; J. Harrison, 1973) to a rejection of the application of the labour theory of value to labour-power (P. Bullock, 1974; J. Gardiner et al., 1975, H. Gintis and S. Bowles, 1981).⁶⁶ The reduced version which was then favoured - that labour-power should not be conceptualised as the result of a production process and the value of labour power is simply the value of the commodities the worker purchase to reproduce their labour-power - returns us, ironically, to Marx's second formulation.

⁶⁴For a more detailed comparison between the wage theories of Ricardo and Marx see B. Rowthorn, "Marx's Theory of Wages," in B. Rowthorn, Capitalism, Conflict and Inflation (London: Lawrence and Wishart, 1980).

⁶⁵P. Harvey, op.cit., pp. 309-10.

⁶⁶Ibid., p. 312. P. Harvey refers to his unpublished Ph. D. dissertation for a more detailed survey, of which the article is a summary.



An examination of each of the factors which Marx entered under his cost of production formulation leads P. Harvey to the assertion that Marx actually employs a rather different explanation in his analysis of wages, one which is based on the class struggle. It amounts to a third formulation for the value of labour-power, which P. Harvey refers to as the 'class struggle theory of the value of labour-power'.⁶⁷

He finds that in each instance, even where the explanation is cast in the form of the cost of production theory, the ultimate explanation can be traced down to the determining role of the state of class struggle. The clearest examples of this are Marx's analysis of the effect of the length of the working day and the intensity of labour on the value of labour-power. While Marx analysed their impact on the value of labour-power in terms of their effect on the reproduction cost of labour-power through the the increased wear and tear caused by working longer hours or more intensely, both factors themselves - the length of the working day and the intensity of labour - are analysed as the outcome of a history of class struggle. Similarly in the case of the family, which represents the factor of the generational reproduction of labour-power, Marx constructed an argument in cost of production of terms when he argued that the employment of women and children, on the one hand, tended to raise the overall value of labour-power by raising the family's costs of subsistence through the substitution of purchased means of subsistence for the no longer available "free labour at home", on the other hand, it led to the depreciation of the value of the individual worker's labour-power (and

⁶⁷Ibid., p. 307.

increased the rate of exploitation).⁶⁸ But two omissions are noted by P. Harvey, which in his view swing the weight of explanation towards the determining role of class struggle. Firstly, Marx never related these changes in the value of labour-power to the labour time necessary for the reproduction of labour-power (the first formulation); rather, he reasoned solely in terms of the increased monetary costs of the new situation in conformity with his second cost of production formulation. Secondly, Marx did not integrate the obvious fact of the lower wages of women and children, which has a clear role to play in explaining capital's interest in employing them, by extending his cost of production formulation to their labour-power. P. Harvey speculates that their lower wages might have been taken for granted as too obvious to mention in the course of that particular argument, but he also notes that bringing this into the argument would have brought up the awkward point of explaining the value of their labour-power, so that Marx simply passed over the issue.⁶⁹ On the other hand, for the question of the extent to which women and children were employed the explanation was couched in terms of the "habits and resistance of the male workers" (i.e. class struggle).⁷⁰

A similar argument is made by P. Harvey with respect to Marx's treatment of the question of skilled labour. Explicitly, the cost of production formulation is applied to the determination of the value of skilled labour, but in analysing the developmental tendencies of

⁶⁸Capital Vol. 1, p. 518.

⁶⁹P. Harvey, op. cit., p. 318.

⁷⁰Capital Vol. 1, p. 489.

capitalism, two contradictory tendencies are described, expressed in terms of the struggle or opposition of capital and labour; from capital's side, the simplification of labour, but also a demand for new forms of technically skilled labour; from the workers' side, the struggle for general education - education as a matter of right - which implied a higher value generally for labour-power.

Finally, the maintenance factor in the determination of the value of labour-power, which we have chosen as our topical framework through which we discuss labour-power's valorisation process, is couched explicitly in cost of production terms, although it contains the indeterminate "historical and moral element," we've already encountered, whose dramatic increase has been interpreted by subsequent Marxists as gains won in a process of class struggle.⁷¹

P. Harvey neatly summarises his view in these terms:

"... in the final analysis, Marx developed a class-struggle theory of the value of labor power which he chose to call a labor theory while giving it the formal structure of a cost-of-production theory." (P. Harvey, 1983, p. 307)

However, the way in which he has drawn the distinction between the labour theory and the cost of production versions depends on a labour-embodied concept of "socially necessary labour time," that is to say, the general concept of labour. In contrast, if only that labour which is subsumed under the value-form through exchange, and thus distinguished as 'abstract labour', is considered in connection with the value of labour-power, as against everything else which enters into its reproduction, then Marx's reference to the "socially necessary labour-time" in the first case and the value of the commodities which enter into the subsistence requirement (the second case) could be regarded

⁷¹P. Harvey, op. cit., p. 314.

as equivalent. His derivation of the third formulation, bringing to the fore the element of class struggle, comes out of the remains from abandoning the second, except for the retention of the shell of the concept of the value of labour-power. What is the problem with the cost of production version?

Labour-Power's Circuit of Value

There are two outstanding features of the cost of production thesis: 1) that a circuit of value is posited in the reproduction of labour-power and 2) that labour-power's reproduction process is distinct from the production process of other commodities.

Some of the properties of labour-power's circuit of value can be isolated for discussion by taking the cost of production thesis on the minimal basis described by S. Bowles and H. Gintis⁷² in which it asserts no more than a tautological truth of the equivalence between the wage and subsistence. A formally correct circuit of value runs conceptually from production to consumption and back to production as the portion of capital paid to labour returns in the form of their purchases of commodities. The completeness of the value circuit gives expression to the character of the production process, through its continuous, periodic repetition, as a self-perpetuating totality, congruent with Marx's dictum of the equivalence of the social production process and social reproduction,⁷³^{yet} it is perhaps not strictly

⁷²S. Bowles and H. Gintis, 'Structure and Practice in the Labor Theory of Value', Review of Radical Political Economics, Vol. 12 No. 4 (Winter 1981), p. 6.

⁷³Capital Vol. 1, p. 711.

necessary to the latter idea. We may grant, for instance, in at least two respects relevant to the case, that a process of reproduction is contained within the overall structure of the capitalist production process: the renewal of labour-power through consumption and the restriction of the wage-level to one which perpetuates the dependence of labour on capital. The equivalence between these two terms, insofar as the entire wage is spent on consumption, can be extended right around the circle for labour's particular circuit of value. Thus, with one major qualification by Marx (below), the circuit of value describes a trail of equivalences among the five terms in labour-power's circuit of value: the wage as the sale price of labour-power; the portion of the capital value transformed by capital into labour-power (variable capital); the portion of the working day (the necessary labour) as well as of the product corresponding to the variable capital; the value of the commodities sold to labour, which is purchased out of the wage.

The qualification concerns a break in the circular journey of value through the circuit: the circuit has an end point in labour-power in the sense that value as substance is not conserved as, for example, by a transfer of the value of labour-power into the product. The reason for this, of course, is precisely Marx's introduction of the category of labour-power as a corrective to A. Smith and Ricardo's value accounting in which the attribution of a value to labour on a cost of production basis implied either an inability to account for surplus value on the basis of labour if equal exchange were supposed between capital and labour (the wage equal to the 'value of labour') or, without it, the existence of exploitation in the form of unequal exchange between the two (the wage less than the value product of labour). By positing an equivalence between the wage as a sum of

value for capital (variable capital) and the value of the commodities consumed by labour, mediated theoretically by the cost of reproduction interpretation of the value of labour-power, Marx is able demonstrate the extraction of surplus labour within a strict equality of exchange between capital and labour.

The significance of this point for the present account is that the theory of value does not absolutely require a value equivalence across this juncture. Given that capital actually derives its equivalent for the value embodied in wage paid out (variable capital) not from the value of labour power it receives in exchange, but from the 'necessary labour' performed by labour, the surplus may be defined as an excess relative to this 'necessary labour', without adducing a categorical dependence on a special value term for labour-power, which functions theoretically as a value limit on 'necessary labour', ensuring the normal possibility of surplus value.

On labour's side of the wage relation, two results are supported by the interpolation of the value of labour-power between the wage and consumption. One is the interpretation of the wage relation as an equal exchange, which rests on labour receiving a wage equal to its value as labour-power; the other is that the wage level and the existence of the possibility of appropriating surplus value from labour are direct outcomes of the normal laws of the market. To move from the mere tautological or formal truth of the circuit of value to attributing a determining role to the value of labour-power, some process particular to the supply circumstances of the commodity labour-power must provide the basis for a determinate connection between the wage and value.

Given the difference in units in which the terms, price and value, are expressed, the usual mode of expressing the determination of price by value - prices 'equal to' values, the 'proportionality' of prices and values, value as the 'center of gravity' of prices, etc. - can be made more explicit in the following way: The commodity's value is mirrored in a monetary sum which represents a value equal to the value of the commodity, or the commodity's price is equal to that price which corresponds to the commodity's value. Schematically, it appears thus:

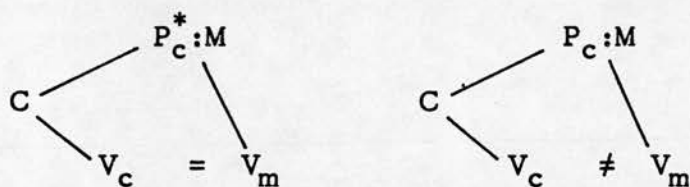


Figure 1.

C is a commodity, with a price P_C^* expressed in terms of a units of money M , representing a value of V_m equal to the value V_C of the commodity. The actual price P_C may differ from this price corresponding to the commodity's value, P_C^* , in which case V_m is not equal to V_C . For labour power, the relations are depicted analogously.

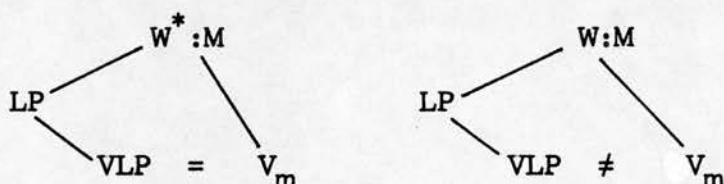


Figure 2.

The idea of value determining the price of labour-power needs to be described more explicitly to avoid any tendency to think of value as some self-sufficient causative agency. It seems to me clearer and more explicit to conceive the coincidence of price and value as a result of the conditions forming and influencing the exchange relation.

Thus, in line with the above schematic of their relation, the determination of price by value is interpreted as the movement of price to the level at which the value represented by it coincides with the value inherent to the commodity. In this conception of the relation of 'determination', the price term is the tangible object of decision and action, which always carries an implicit value side - in effect, a value claim - while value itself represents the labour of production whose allocation (within the system of production for exchange) determines the supply of the commodities exchanged. The question of a determinate relation between them is translatable into the question of what processes are set in motion in response to a divergence between them.

In adopting the cost of production concept of Classical political economy to define the value of labour-power, Marx shifted the explanatory basis from the population theories of Malthus and the like to a number of more short-term effects of capital accumulation.⁷⁴ As pointed out by P. Harvey, discussed above, and B. Rowthorn (1979), more than one conception of the underlying process relating the wage and supply of labour-power to its value is proposed by Marx under the rubric of this 'cost of production' concept.

The predominant conception, which is also congruent with the 'cost of production' designation, is demographic in the sense that it associates the value of labour-power with the real process of production (reproduction) of labour-power, i.e. its supply conditions, without limiting this to the biological factors. If, in this conception,

⁷⁴ Capital Vol. 1, p. 790-1: "Taking them as a whole, the general movements of wages are exclusively regulated by the expansion and contraction of the industrial reserve army. . . . They are not therefore determined by the variations of the absolute numbers of the working population. . . ."

the process of the determination of the wage by the value of labour-power is assumed to be a market one, which is the natural extension of the analogy of the commodity to the demand for and supply of labour-power, a number of objections come up against it. Firstly, as P. Harvey argues, a convincing mechanism is lacking which would provide the basis for an automatic, i.e. market, adjustment of the supply of labour to demand in a form responsive to the price of labour-power. Since the demand for labour-power might reasonably be treated similarly to capital's demand for other commodities, the distinctness of labour-power as a commodity appears to fall on the side of supply. With an eye to those factors cited by Marx as substitutes for the de-emphasised factor of wage-responsive population growth,⁷⁵ the generation of new supplies of labour-power through such processes as primitive accumulation, the employment of women and children, and the destruction of traditional modes of production are not regarded by P. Harvey as sensitive to a difference between the price and value of labour-power and therefore do not provide an adequate basis for a supply-adjusting mechanism.⁷⁶ He does not discuss the factor of the 'reserve army of labour', on which Marx places so much emphasis in the regulation of the wage; perhaps, it is excluded because Marx does not tie it specifically to the question of the value of labour-power. The continuous regeneration of the reserve army of labour, however, does provide the basis for a second criticism. If the wage were determined purely in a process of supply and demand, then the

⁷⁵Although B. Rowthorn has noted Marx's explicit recognition of a Malthusian factor in Capital Vol. 3, p. 363.

⁷⁶P. Harvey, *Ibid.*, p. 342.

continuous existence of an excess supply of labour is held to be incompatible with a non-zero 'market clearing' price for labour-power.⁷⁷

If one standard understanding of the cost of production definition of the value of labour-power, emphasising a demographic process adjusted in the market, seems untenable, its formal content - determination of the wage by the value of labour-power as the basis for securing the possibility of surplus-value - is preserved in two variants which are to be found in Capital and Wages, Prices and Profit. These however, also undermine the appropriateness of the 'cost of production' designation, so that they really constitute different definitions of the value of labour-power, even if they were regarded by Marx as more or less equivalent. In the first variant, the wage which corresponds to the value of labour-power is the minimum wage which will provide the "traditional standard of life,"⁷⁸ which of course relates to earlier discussion of the "historical and moral element" in the definition of the subsistence requirement. The observations made above concerning an excess supply of labour and also the fact of collective (i.e. non-market) wage-bargaining bend this definition of the value of labour-power towards a class struggle interpretation. 'Class struggle' here is something of a catchall insofar as the reference is not exclusively to conscious class struggle, but the essential point would obviously be a wage determination process rooted in the opposition of the interests of capital and labour. In that

⁷⁷S. Bowles and H. Gintis, op. cit., p. 10 and B. Rowthorn, op. cit., p. 196.

⁷⁸K. Marx, Wages, Prices and Profit, in Selected Works, (London: Lawrence and Wishart, 1968), p. 222.

process, one could certainly conceive of the value of labour-power, pegged to the traditional standard of life, as providing a settling point for wages (whose conscious, i.e. ideological, equivalent would be some form of 'fair wage'), but one which contains an interesting historical contingency in periods of accumulation which feature a continuous disruption of these traditional standards and patterns of consumption. Also, once the general standard of life has become quite high, the greater scope for variability in patterns of consumption, even on the standardised basis of mass-produced commodities (because of the combinatorial possibilities), might dissolve any stable basis for the determination of the value of labour-power. One would then need to speak of the transformations in the regulation of the wage, either in the sense of reconstituting the value determination on the basis of a different standard within consumption or suspending this form of regulation altogether.

A second variant may be considered more briefly. B. Rowthorn suggests that yet another definition is to be found in Marx's writings in which the value of labour-power is "the minimum wage required to induce people to seek work or remain working in the capitalist sector."⁷⁹ This very different kind of standard appeared in Marx's discussion of the high standard of wages in the early history of the United States, which he attributed at the time to the competing attraction for labour of settling on the land as independent farmers.

Rowthorn suggests that a common thread runs through all three conceptualisations of the value of labour-power, which could be regarded as different forms of the same principle. It is the notion of

⁷⁹B. Rowthorn, op. cit., p. 209, referencing Wages, Prices, Profit, p. 224.

some minimum standard of life which the wage must provide to make a supply of labour-power available for capital.⁸⁰ They are not mutually exclusive, but even where they historically coincide, which they needn't, they are conceptually distinct. No single one can be selected a priori as the correct one. Indeed, the cost of production version of the value of labour-power category might be thought of as a group or class with a common explanatory structure, with more variants than Marx happened to observe. Except in its demographic version, the 'cost of production' designation has no strict application from the viewpoint of labour; however, like one figure standing behind another, there is another sense of the term 'cost of production', namely, as 'variable capital', which refers to labour-power as a means of production for capital and can be taken to signify the minimum standard wage capital must pay to obtain the requisite supply of labour-power.

The key to understanding their explanatory role lies in the different consequences set in motion by a transgression of the predominant minimum wage standard. A notable difference between a poorer and a richer country could be captured, as Rowthorn observes, in the demographic form of the minimum standard of wages in the former, wherein a loss in the quality or even quantity of labour-power would be consequent to wages falling below the level; whereas, under more affluent conditions, it would be manifested as a stimulus to economic and political struggle. In either case, the underlying process which is set in motion by a divergence between the wage and the minimum standard (which defines the value of labour-power) need not

⁸⁰Ibid., p. 210.

be conceived exclusively as a market one, in the form of automatic adjustments in the supply and price of labour-power.⁸¹ Where, for instance, the standard takes a demographic form, the existence of a large external reserve of labour-power, e.g. Mexican labour for migrant farmwork in the United States, the wage may continue to lie below the minimum as capital draws new labour-power from the same pool. In this case, since the source of labour-power is large and generated externally to the accumulation process of American capital, the mobility of labour between different employments and the impairment to the health and strength of the ones who remain, which would ordinarily impose shortages of labour and losses in terms of productive efficiency for the underpaying capitalist exerts no influence on the situation.

These criticisms of Marx's value-determination formula for labour-power have provisionally led our discussion to the rejection of a pure market process conception of wage regulation and a broadening of the definition of the value of labour-power to allow for more than one type of minimum wage standard, as against the single objective standard grounded in a demographic conception of the supply of labour-power. Two aspects of the form of the valorisation of labour-power will now be considered. First, briefly, the relation of the market and non-market processes which embody the value-determination relation as it pertains to labour-power. Then, at greater length, we will look more closely at the difficulties created by the cost of production conception of the valorisation of labour-power

⁸¹ As R. Rosdolsky (1977) has suggested, in the Grundrisse (p. 282, 521), Marx did not regard the 'Law of Wages' as derivable from the commodity form per se, although in speaking thus, the focus of his concern appears to be special laws of the labour market. (Ibid., p. 57).

in the light of the notorious 'transformation problem' in Marxist value theory.

Market and Non-Market Valorisation Processes

The rejection of a pure market concept of the wage/value of labour-power relation in the discussion above is somewhat of an artifact of the either/or contrast of market and non-market phenomena in the presentations of P. Harvey (1983) and S. Bowles and H. Gintis (1981). The result of their critiques should not be to regard market processes as irrelevant to the value theory conception of wage-regulation, as one finds in P. Harvey's swing to a pure class struggle conception of the value of labour-power.⁸² As S. Bowles and H. Gintis say, more appropriately,

"... we have no quarrel with the representation of the value of labour-power by the socially necessary labour-time embodied in the commodities constituting the wage bundle. This formulation is crucial to the ability of the labour theory of value to integrate the description of the labour process and class struggle with the determination of wages, profits and prices. Nor, lastly, do we suggest that markets may be ignored in the determination of wages and the allocation of social labour." (S. Bowles and H. Gintis, 1981, p. 8)

We shall see below whether the traditional formula can, in fact, be upheld. Here we only wish to note its relation to the market process. Both market and non-market processes (class struggle) can be incorporated into the valorisation of labour-power because of the peculiar character of labour-power as a commodity. In labour-power,

⁸²P. Harvey, op. cit., p. 343. He does not discuss why, in this case, the intermediate category of the value of labour-power should be retained. Why not a direct class struggle conception of wage-determination, such as one finds in the neo-Ricardian perspective without value theory, i.e. a distributional struggle between capital and labour over their share of the net product?

both agent and object of the exchange are one and the same, as Marx often pointed out. Unlike any other commodity, it can represent itself concerning the terms of its exchange. Thus, within the framework of labour-power's commoditisation, the wage-labourer, unlike the slave, owns his/her commodity and the wage-relation contains inherently both a market and non-market, i.e. class struggle, aspect. The idea of the wage as the exchange-value of labour-power, which expresses the subsumption of the labourer under the value-form, must not exclude the possibility of a conflict of interests between capital and labour, each the possessor of a property right. From this point of view, the concept of the commoditisation of labour-power is more specific than a generalised notion of 'class struggle': While 'class struggle' refers here to the full range of the antagonistic relation between capital and labour, deriving from the relation of exploitation and associated with a broad view of the wage relation as encompassing also their relations within production, the opposition of their interests is a more specific form of class struggle, which can be derived from their being on opposite sides of a relation of exchange. The revision implied by the criticisms above is a shift in the weight of explanation from the influence of a market process operating on the labourer as commodity to align the wage to the value of labour-power in some kind of equilibrium to the struggle of interests over the terms of the exchange between labour and capital as agents of the exchange, in which the determination of the wage continues to be (or not, as the case may be) expressible in terms of the value of labour-power. This shift in perspective implies the relevance of all factors which affect the power balance between capital and labour in these negotiations to the wage-determination process; including the 'cost of production' factor, which would take the form of the minimum wage providing the accepted standard of living, etc.

Class struggle as the basis for the value of labour-power can be presented more positively than as a kind of fallback for an untenable aspect of value theory. A. Negri (1979) proposes a 'class struggle' account of the valorisation of labour-power as a counterthesis against the one-sidedness of the purely 'objective' explanation to be found in traditional Marxist accounts of wage-determination through the value of labour-power.⁸³ What Negri means by an 'objective' bias is an exclusive orientation to the view-point of capital implicit in an explanation cast in the form of the laws of the market. What is lacking, according to him, is an account developed from the labour's side of the wage-relation. Ideally, such an account would have been embodied in Marx's unwritten 'Book of Wages', as substantial as and counterposed to Capital. In it consumption, wage demands, and workers' needs would be represented as arenas of struggle between capital and labour. An objectively founded concept of the value of labour-power would be supplanted by one constituted through a subjective process of struggle - a 'self-valorisation' of labour:

"... Certes, Marx a développé une théorie du profit, c'est-à-dire une théorie de la subjectivité du capital, tandis que au contraire, et malgré ses intentions - il n'a pas développé une théorie de la subjectivité de la class ouvrière - éventuellement sous la figure de la salaire. Mais ce déséquilibre dans le développement littéraire de l'oeuvre de Marx ne peut nous empêcher d'en reconnaître l'équilibre structurel. Et de développer nous-mêmes les prémisses qui ont été posées, en reconnaissant dans la journée de travail social, dans sa division entre plus-value sociale et travail social nécessaire, le fondement de la lutte mortelle que les deux class se livrent. En identifiant dans ces deux espaces la formation de subjectivités opposées, de volontés et d'intelligences opposées, de procès de valorisation opposée..." (A. Negri, 1979, p. 170)

⁸³A. Negri, Marx au-delà de Marx (Paris: Christian Bourgois, 1979).

While this corrective to Marx comes out of the particular political and economic struggles in Italy over the imposition of austerity under the hand of the I.M.F., its generalisation may be quite a propos under current conditions. This line of argument from the 'autonomia' (autonomist) tradition in Italy, which A. Negri represents, has directly influenced J. O'Connor's recent analysis of the crisis in the 'affluent' capitalist societies.⁸⁴ He proposes a restructuring of Marxist theory to give ideology a more significant role among the elements leading up to the accumulation crisis, a crucial aspect of which is a revision in the way the wage-determination process is conceived within Marxist theory. In particular, he suggests a modification to the traditional concept of the value of labour-power so that workers would be recognised as "both subjects and objects of the exchange of labour-power against wages."⁸⁵ The proposed change, however, could be taken in two distinct ways: Either the traditional account of wage-determination as an objective process was never correct (on the grounds that labour-power is not a commodity product of capitalist conditions of production) or that account is being modified by the addition of a subjective side. In the latter case, both accounts are theoretically relevant, while historical conditions determine which is the dominant explanation.

To the extent that the 'class struggle' emphasis originates in a critique of economic determinist tendencies in traditional Marxism it is a valuable corrective. However, there is some ambiguity here whether the 'class struggle' corrective is intended to be implemented by

⁸⁴Talk given at Modern Times Bookstore, San Francisco on October 12, 1984.

⁸⁵J. O'Connor, Accumulation Crisis (New York: Basil Blackwell, 1984), p. 154.

supplanting all market process explanations (in this case, framed in terms of the 'cost of production') or by supplementing ^{them} it. If it supplements, then class struggle, which is basic in Marxist theory, is an element in both the market and non-market forms of the relation between capital and labour, and the 'cost of production' thesis is one interpretation of the form which the market process takes. O'Connor is not completely clear on this point. His adoption of a 'self-valorisation' concept of the value of labour-power as a step towards explaining the crisis-inducing shrinkage of surplus value will be looked at more closely later in connection with our discussion of the modern phenomenon of rising living standards within the capitalist accumulation process. Meanwhile, we continue the discussion here of the form and limitations of the concept of the value of labour-power employed in Marx's theory of value.

The Form of Valorisation: Alternatives

The idea was presented earlier of labour-power having its own circuit of value, comprised of a chain of equivalences. The substantive significance of this circuit was also suggested. The formal correctness, amounting to a tautology, of positing a value equivalence between the wage and labour's consumption in the cost of production thesis expressed one condition of Marx's notion of the duality of production and reproduction. Labour's value circuit expresses the reproduction of labour's dependence on capital when the value of labour-power holds the wage down to a level which only provides for consumption. In the most stringent application of this idea, the level of consumption allowed by the wage would barely reproduce labour-power from one day to the next. From the point of view of the

reproduction of a capitalist system of production, the level of consumption could clearly be allowed to rise a considerable way without destroying the labour's dependence on capital. That discussion is postponed to a later point, while we continue to focus on the system of value relations in which the concept of labour-power as a commodity is imbedded. In particular, certain complications arise from the 'transformation problem' which affect the question of how the value of labour-power should be formulated.

The value equivalences constituting labour-power's circuit of value, including variable capital as a point of intersection between the circuits of labour and capital, are illustrated below with equal exchanges in value terms represented by the dashes.

$$\begin{array}{c}
 M - C \left\{ \begin{array}{l} mp \\ lp \end{array} \right. \dots P \dots C - M' \\
 | \\
 W - C \dots LP
 \end{array}$$

Figure 3. Value Circuits - Labour and Capital

The value equivalences among the labour-power terms - the wage, labour power, the subsistence requirement, and variable capital - express the participation of labour in a system of production for exchange in which all surplus is appropriated away from its source, leaving labour to recycle its own constant value, given the standard of subsistence. No disturbance to these value equivalences is posited as inherent to labour's own circuit of value. Nor is there any from capital's side at the level of analysis employed by Marx in Capital Vol. 1, where prices correspond to values. The problems concerning what is the appropriate formulation of the concept of the value of

labour-power arise with the well-known transformation problem in Marx's Capital Vol. 3, which concerns the effect on the determination of commodity prices of introducing the new level of analysis at which 'capital in general' is differentiated into many capitals, whose mutual competition implies a tendency for the equalisation of rates of profit.⁸⁶ After the transformation, when the prices of Capital Vol. 1 have become 'prices of production'⁸⁷ a disproportionality between the prices and values of commodities is introduced, which disrupts the chain of equivalences running through labour's circuit of value at the juncture occupied by labour-power between consumption and the wage. On the consumption side of labour-power, the bundle of commodities which compose the subsistence requirement must be purchased at their price of production, which may be above or below what they were before the transformation, but the value contained in them remains the same. Continuing, as before, to tie the determination of the wage to the purchase of the subsistence requirement and defining the value of labour-power according to this 'cost of production', i.e. by the value of the corresponding commodities, a divergence is encountered now between the wage and the value of labour-power. More specifically, when the wage is equivalent to the subsistence requirement purchased at the prices of production, it is no longer equatable to the value of

⁸⁶R. Rosdolsky, op. cit., p. 46.

⁸⁷cf. A. Shaikh, 'Marx's Theory of Value and the "Transformation Problem"', in J. Schwarz, ed., The Subtle Anatomy of Capitalism (Santa Monica, Calif.: Goodyear Publishing Co., 1977). One of many discussions of the nature of the transformation problem, Shaikh's essay clarifies the categorical confusions which arise from thinking in terms of the 'transformation of values into prices'. He proposes the view that the the prices of Capital Vol. 1, which he designates 'direct prices', and not 'values', are transformed into prices of production (p. 121).

labour-power defined according to the value of the subsistence requirement. This effect of the transformation process has been noted by a number of writers.⁸⁸

The divergence which has emerged between the wage as the price of labour-power and the value of labour-power need not be taken in itself as a discrepancy or inconsistency in the theory of value, which countenances such divergences in many forms, among which prices of production are but one. Marx's exposition of value theory contain many other such 'transformations' as new layers or differentiations within the form of value are introduced in the unfolding specification of the 'Law of Value': e.g., market prices, which reflect temporary imbalances of supply and demand in the market; the distinction between individual and market values, which reflect differences in productivity between competing capitals in the same branch of production, etc. Grounds do exist, however, for reconsidering the key role which the standard definition of the value of labour-power, discussed above, is given in the traditional approach to the transformation problem. The arguments for this reconsideration have been worked out formally with great care by A. Lipietz (1982), while the proposed alternative, arrived at independently, is given a fuller interpretation by D. Foley (1982) and incorporated into the 'abstract labour' approach to value theory by S. Mohun (1985) and S. Himmelweit (1984). Rather than reproduce the whole, already much

⁸⁸D. M. Nuti, 'The Transformation of Labour Values into Production Prices and the Marxian Theory of Exploitation', in J. Schwarz, ed., The Subtle Anatomy of Capitalism (Santa Monica, Calif.: Goodyear Publishing Co., 1977), p. 100; D. Foley, 'The Value of Money, the Value of Labor Power and the Marxian Transformation Problem', Review of Radical Political Economics, Vol. 14 No. 2 (Summer 1982), p. 43; A. Lipietz, 'The "So-called Transformation Problem" Revisited', Journal of Economic Theory, Vol. 26 No. 1 (1982): 59-88.

repeated, discussion of the transformation problem (with its mathematical formulations), only the essentials of the argument affecting the category of the value of labour-power will be considered here.

As traditionally conceived, the deficiency in Marx's derivation of the prices of production for the commodity output concerns his omitting to extend the transformation to the values of the means of production which are purchased as commodities. When the deficiency is corrected, the same problem is always encountered, namely, the incompatibility of Marx's two principal conclusions: the equality of the sum total of prices, before and after, to the sum total of values and the equality of the total profit with the total surplus value, both of which had obvious significance for the labour theory of value as traditionally conceived in which prices and profit are accounted for by the labour embodied in the process of production. Of the enormous literature spawned by the controversy over the transformation problem, providing many competing resolutions to the theoretical dilemma by offering different interpretations as to its significance or to the theory of value itself, A. Lipietz (1982) identifies a common tradition in the formulation of the problem, which quite naturally, but also unnecessarily generates the dilemma at issue.

The traditional route to arriving at the complete system of prices of production is the one already indicated, but not carried out by Marx; namely, to transform the commodity input prices as well as the commodity output prices.⁸⁹ As Lipietz points out, this step is unexceptionable for the elements of constant capital, composed of

⁸⁹Capital Vol. 3, p. 264-5.

means of production in the form of commodities, but for the variable capital element the solution hit upon of identifying the value of labour-power with the value of the commodities purchased with the wage (prior to the transformation) is, as he says, "not at all neutral."⁹⁰ This treatment of the variable capital component is a naturally appealing one in that it is congruent with Marx's definition of the value of labour-power (in the 'cost of production' version) and also, for the system of simultaneous equations with as many equations as there were prices to be determined, reduces the number of variables by resolving the wage into the set of prices. The usual way of doing this is to substitute for the wage a theoretically equivalent term representing the set of commodities (understood to be the subsistence requirement) which the wage is used to purchase. This equivalence is set prior to the transformation process, by equating the wage to the total value of the commodities set. The effect of this substitution is to treat the commodities consumed by the worker as indirect commodity inputs to the production process on the same footing as the direct commodity inputs in the system of equations for determining the prices of production. As a result, two channels are built in for the recursive impact of adjustments in the commodity output prices which feed back as costs of production in the form of commodity input prices: one through the means of production purchased on the commodity market by capital and the other through the wage basket of the workers hired on the labour market. The divergence between prices of production and initial values induced by the transformation process implicitly causes the wage term to move with the price of the workers'

⁹⁰A. Lipietz, 'The So-called "Transformation Problem" Revisited', Journal of Economic Theory, Vol. 26 No. 1 (1982), p. 65.

consumption as this diverges from its initial value. If total prices are constrained to equal total values (the normalisation assumption), which implies that the aggregate value or price is unchanged by the transformation, the result under this transformation procedure is an inequality, in the general case, between the total profit and total surplus value. Or, vice versa: When the normalisation assumption is switched, as in some solutions to the transformation problem,⁹¹ and total profits are assumed equal to total surplus value - on the grounds that the question of exploitation is Marx's principal concern - this equality is found to be incompatible with the equality of total prices and total ^{values} prices. In other words, one dictum of Marx can be maintained only at the expense of the other, when both are thought to be desirable because the transformation process corresponds to a process of redistribution, in which values should be conserved, in contrast to their creation in the process of production.⁹²

This familiar result of the complete transformation calculation is not the whole story, as A. Lipietz and others have made clear. Under some very restrictive conditions concerning the structure of the output relative to the system of input/output equations - not referring here to Marx's special condition of the equal organic composition of capital in different branches, but M. Morishima's 'Marx-von Neumann ray' of maximum balanced growth of the system - both equalities will hold. A. Lipietz takes this result one step further, claiming that any of the

⁹¹W. J. Baumol, 'The Transformation of Values: What Marx "Really" Meant (An Interpretation)', Journal of Economic Literature, Vol. 12 No. 1 (March 1974), p. 56-7.

⁹²I. Gerstein, 'Production, Circulation and Value: The Significance of the "Transformation Problem" in Marx's Critique of Political Economy', Economy and Society, Vol. 5 No. 3 (August 1976), p. 266.

possible arrays of commodity output can be decomposed into, i.e. represented as, the ideal array and a set of divergences from it. On the basis of this, he demonstrates that the changes in the prices induced by the transformation are mutually compensating ones (but this only holds with respect to evaluating the output array at the prices of production of the ideal array).⁹³

The alternative path, the one not taken previously for the solution of the transformation problem, is based on a very different treatment of labour's part in the equations representing the price of production system. Instead of identifying the wage with the commodity basket and substituting in the latter with prices into the price of production equations, A. Lipietz proposes that the wage be identified with the variable capital on the grounds that the immediate form of the equivalent paid for labour-power is a money-wage. Variable capital in this connection has two faces. As a value which moves from capital to labour, it is the value paid out by capital in the form of the wage (a monetary sum) to obtain labour-power as a means of production; as a value which moves from labour to capital, it is the 'necessary labour' performed by labour, embodied in the commodity output, and an equivalent to the wage, which is taken out of the total revenue as an element of capital's cost of production before determining the surplus. The specific form of the identification with variable capital in Lipietz's approach is the wage as a share of the value added by labour, or $1/1+e$ where e is the rate of surplus value.⁹⁴ Alternatively, a slightly different definition is put forward by

⁹³Ibid., p. 67-8.

⁹⁴Ibid., p. 75.

D. Foley: the value of labour-power as the wage times the value (abstract labour) represented by money.⁹⁵ When the calculation of the prices of production are done on this basis, it becomes possible to show the compatibility between two aggregate equalities. These are the equality between total price and total value for the net, not the customary gross, product and the equality of total profit and total surplus value.⁹⁶

The differences in these solutions to the transformation problem emerges quite clearly when their mathematical development is placed on a comparative basis. The notation has been standardised. The derivations which are of interest here are only slightly modified from the originals to illustrate the differences with respect to the role of the value of labour-power. The reader is referred to the originals for the mathematical arguments.

The common value formula which serves as a point of reference for both transformation procedures is given the following vector form by A. Lipietz:

$$l^* = l^*A + wl + ewl \quad (1)$$

The new value added l , which denotes the quantities of abstract labour incorporated in the commodities produced, is differentiated into the paid and unpaid part labour through the wage term w , representing both the value of labour-power or the wage and expressed as a share of the value added, and e representing surplus value as the remaining share. By definition, the interrelation of these two terms is:

⁹⁵D. Foley, 'The Value of Money, the Value of Labor Power and the Marxian Transformation Problem', Review of Radical Political Economics, Vol. 14 No. 2 (Summer 1982), p. 43.

⁹⁶A. Lipietz, *Ibid.*, p. 79.

$$e = \frac{1 - w}{w} \quad (2)$$

The price of production equations in both transformation procedures, the traditional one identifying the value of labour-power with its cost of production in terms of a subsistence bundle and that of A. Lipietz identifying it with the variable capital required in production, extend Marx's partial transformation which, using his standard value notation, was limited to changing $C + V + S$ to $(C + V)(1+r)$.

$$p = (1+r)(p_A + p_{bl}) \quad \text{the traditional approach} \quad (3)$$

$$p = (1+r)(p_A + w_l) \quad \text{Lipietz's solution} \quad (4)$$

The mathematical terms are read as follows:

A = the matrix of input/output coefficients a_{ij} representing the units of means of production i used to produce commodity j of the output vector x

b = a vector of the subsistence commodities per unit of labour time

l = a vector of the quantities of abstract labour⁹⁷ (direct labour) l_j incorporated into a unit of commodity j

l^* = a vector of value quantities l_j^* embodied in commodities j

p = a vector of prices (of production) p_j of commodities j , which are actually transformed values in the context of the transformation problem with a normalisation to the equality of total 'price' and total value.

⁹⁷ Lipietz makes a deliberate distinction between the labour-power which must be purchased to produce a given commodity and the value added by that labour-power, or 'abstract labour', in actual production. The distinction is reduced to a conceptual one in this application; as quantities they are treated as equal. He discusses in his 'Appendix A' how the transformation from concrete to abstract labour quantities, taking into account the duration and intensity of labour, can be represented using the mathematical device of tensors.

m = a monetary sum

r = the average rate of profit

w = the wage rate (per unit of labour-time), expressed as a fraction of the value (abstract labour) added by labour l

x = the vector of gross commodity output using Ax and l as inputs

y = the vector of net commodity output, whose relation to x is given by $y = (I - A)x$

The traditional formulation's identification of the value of labour-power with the value of the subsistence bundle, subject to its transformation in the price of production formula (Eq. 3), is formally expressed as:

$$w = l^* b \quad (5)$$

The expression for the rate of profit is derived from the price of production equation (Eq. 3) on the basis of the chosen normalisation condition of total price = total value (Eq. 6) by simple substitution and rearrangement of terms.

$$px = l^* x \quad (6)$$

$$l^* x = (1+r)(pA + pbl)x$$

which becomes:

$$r = \frac{l^* x - pAx - pblx}{pAx + pblx} \quad (7)$$

The numerator displays the lack of equality between total profit, $r(pA + pbl)x$, and total surplus value, $ewlx$, in the standard definition of the value of labour-power. Expanding the 'value added' term l^* by means of the value equation (Eq. 1) reveals the sources of the divergences.

$$r = \frac{(l^*Ax - pAx) + (wIx - pblx) + ewIx}{pAx + pblx} \quad (8)$$

The effect of the transformation to prices of production on the circle of equivalences among the terms affecting labour-power is visualised in the accompanying figure as a split into two chains of equivalences, which corresponds to the divergence between prices and values. The three blocked areas represent the three successive phases of labour-power's circuit of value, $C \dots LP - W$, derived from Fig. 3. The change from equivalence to non-equivalence in the relation between pairs of terms is depicted by the replacement of solid with broken lines.

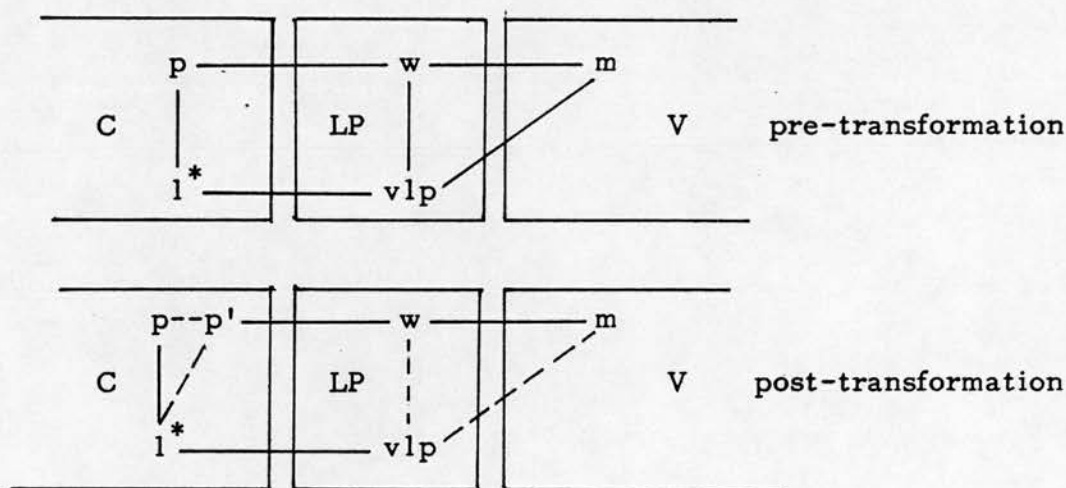


Figure 4. The Standard Transformation Approach

The difference between this result and Lipietz's formulation may now be formally expressed. By rearranging terms in his price of production formula (Eq. 4), in which the value of labour-power is represented by the wage w it is paid, we derive an expression for the total price of the net product, given by $y = (I - A)x$:

$$py = px - pAx = wlx + r(pAx + wlx) \quad (9)$$

By drawing on the normalisation condition chosen by Lipietz, which equates total price of the net product with total value added:

$$py = l^*y \quad (10)$$

and rearranging terms an expression for the rate of profit is obtained, which shows the equality between total profit and total surplus value, **ewlx**:

$$r = \frac{l^*y - wlx}{pAx - wlx} \quad (11)$$

The numerator reduces to **ewlx** because the value of the net product $l^*y = l^*x - l^*Ax = wlx + ewlx$. The reason for the divergence which remains between total price (over the whole or gross product x) and total value can be exposed by normalising over the gross product instead of the net product. Assuming this time that $px = l^*x$, we see the source of the divergence 'shoved down' into the net product level in the rate of profit expression, which will not generally be self-cancelling, and hence gives rise to an inequality between total profit and total surplus value.

$$r = \frac{l^*y + (l^*Ax - pAx) - wlx}{pAx + wlx} \quad (12)$$

The implication for the previous normalisation is that the divergence between the set of values before and after the transformation is confined to the means of production and reflected in an inequality at the level of the total (gross) product.

While the effect of the modification Lipietz introduces is quite remarkable, it is triggered by a minor adjustment, a single shift, in the interplay among the terms clustered around labour-power. The effects on the chain of equivalences linked to the labour-power term is shown in the following figure and should be compared with Fig. 4.

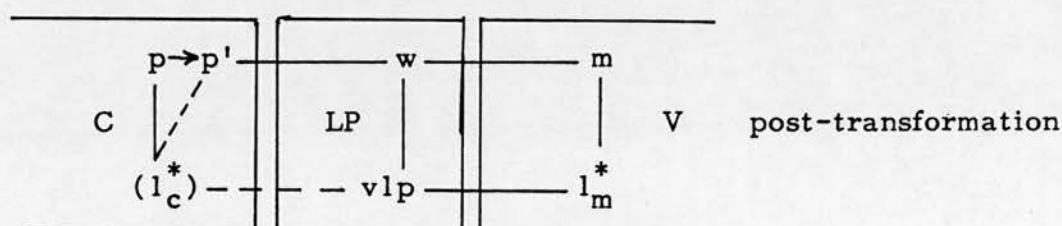


Figure 5. Lipietz's Transformation Solution

The following features of the 'chain reaction' are noted: The new procedure does not actually remove the discrepancy in the traditional approach between the initial equality among the wage, the value of labour-power and the value of the subsistence requirement and the subsequent divergence arising from the transformation. It ceases to matter because the wage term is no longer implicitly required to move with the changes in these prices, which in the traditional procedure pulls apart the wage and the value of labour-power terms because the latter is in a fixed relation to a given subsistence bundle. Instead, the wage now represents a constant in the transformation procedure, a given result negotiated between capital and labour beforehand, and, as a sum of money, itself embodies or represents an amount of value (abstract labour) valorising labour-power through the exchange. This radically alters the form of valorisation of labour-power. It makes the value of labour-power a reflex of the wage, an attribution of value to labour-power, rather than a determinant of the wage arising from labour-power, grounded in labour-power's cost of production. Since, nevertheless, the

subsistence requirement can still be held to play a role in providing a standard from labour's side for defining an adequate wage and driving the wage demand, the change in the conception does not affect the elements involved, i.e. the wage, subsistence, prices, values and labour-power, but their interplay consequent to a single shift in the valorisation formula; namely the shift from the value of the subsistence bundle to the wage itself as a token of value in the identification of the value of labour-power.

This method of resolving the transformation problem is not the only possible one. Another proposed by R. D. Wolff et al. (1982) also turns on a redefinition of the value of labour-power.⁹⁸ The most notable feature in relation to the above discussion is that their approach preserves the cost of reproduction interpretation with respect to the value of labour-power while eliminating the discrepancy which emerges in the transformation process.

Their particular reading of the relation between the transformation problem and Marx's theory of value (employing the Althusserian concept of 'overdetermination') treats the transformation as a development internal to the category of value. They distinguish this from a functional approach to the transformation problem, which thinks in terms of the conversion of values defined as embodied (abstract) labour-time in Capital Vol. 1 to the prices of production. In their conception of a categorical transformation, the movement in value theory from the level of simple commodity production to a specifically capitalist system of production requires a shift in the

⁹⁸R. D. Wolff et al., 'Marx's (not Ricardo's) "Transformation Problem": A Radical Reconceptualization', History of Political Economy, Vol. 14 No. 4 (1982): 564-82.

definition of value. In their view, the capitalist system of production and exchange features not only a divergence between the value of the commodity as it emerges from production and its value in exchange (the price of production) - the normally recognised result; but, when the transformation is fully carried through to include the input prices, they perceive another divergence between two possible definitions of value: the socially necessary labour-time required for the production of commodities and the abstract labour-time embodied in in them. The latter distinction arises because the monetary capital which purchases means of production at prices of production itself represents a quantity of value, which is lodged in the commodity in the course of production. Of the two possible definitions of value, R. D. Wolff et al. opt for 'the socially necessary labour-time', which they regard as Marx's most general definition of value.⁹⁹ In the context of capitalist production, this leads to a definition of the value of the commodity as the combination of the socially necessary labour in the form of means of production (purchased at prices of production) required for the commodity as a product of capital plus the new abstract labour-time embodied in it. The basis of their argument lies in a consideration built into the exchange relation itself; namely, that in every exchange between money and a commodity, both are to be regarded as representing magnitudes of socially necessary labour time.¹⁰⁰ While the coincidence of the two magnitudes determines the equality of

⁹⁹Ibid., p. 568: "The general definition of the value of a commodity, one which Marx consistently maintains across all levels of his argument in the three volumes of Capital, is the quantity of abstract labour time socially necessary for its reproduction."

¹⁰⁰Ibid., p. 572.

exchange in a system of simple commodity production, so that the value of the commodity is equally represented in either form, the relevant magnitude of value for the commodity under the capitalist system of production - the key to their interpretation - is the value at which the means of production were acquired.¹⁰¹ Value thus defined (means of production at prices of production plus current labour) is the value of the commodity as it emerges from production. On to this value is imposed the requirement for the equalisation of rates of profit, to which R. D. Wolff et al. assign the particular meaning of equivalence in exchange peculiar to the relation between capitals; that is to say, exchange at a price of production which equalises profit between capitals makes them equal participants in the overall system. The divergence between value and the price of production induced by this transformation reflects the difference between production and circulation. The difference in form from the previous transformation procedures may be compared through the formal system supported by their interpretation.¹⁰² Starting with their version of the price of production linear equation system, which they note is formally the same as the standard Sraffian one:

¹⁰¹Ibid., p. 574. Here and elsewhere, the reading they give of Marx - from which they seek a warrant for their interpretation - is tendentious, but their proposed revision is of definite interest. As an example of this, they cite the following passage, but seem to have ignored the underscored portion (which supports the traditional approach): "But for the buyer of a commodity, it is the price of production that constitutes its cost price and can thus enter into forming the price of another commodity. As the price of production of a commodity can diverge from its value, so the cost price of a commodity, in which the price of production of other commodities is involved, can also stand above or below the portion of its total value that is formed by the value of the means of production going into it." (*Capital* Vol. 3, p. 264-5)

¹⁰²Ibid., pp. 578-79, with a minor change in the manner of presentation.

$$p = (1+r)(pA + pbl) \quad (13)$$

After rearranging terms to derive the expression for the rate of profit, the same normalisation rule is applied which equates total price and total value as was used in the traditional formulation (Eq. 6):

$$r = \frac{px - pAx - pblx}{pAx + pblx} = \frac{l^*x - pAx - pblx}{pAx + pblx} \quad (14)$$

This result in the traditional approach establishes the inequality between total profit and surplus value, but in this case, the transformation incorporates a redefinition of value:

$$l^* = pA + l \quad (15)$$

Thus, the equality between total profit and total surplus value is arrived at by reason of the definition of value:

$$r = \frac{lx - pblx}{pAx + pblx} \quad (16)$$

Furthermore, by reason of the same definition, R. D. Wolff et al. find that the equality of total price and value is simultaneously an equality of the total net price and value added; that is to say, from $px = l^*x$, they derive through Eq. (15):

$$px = pAx + lx \quad (17)$$

which, by a rearrangement of terms and the connection between net and gross output given by $y = (I - A)x$, yields the equality:

$$py = lx \quad (18)$$

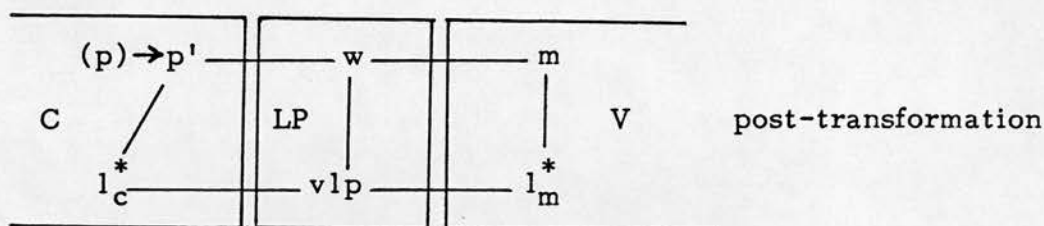


Figure 6. R. D. Wolff et al.'s Transformation Solution

Remarkably, the integrity of labour's circuit of value is completely restored in their solution (compare Fig. 6 with the 'pre-transformation' portion of Fig. 4). Certain differences are apparent, however, in the post-transformation result: note that the old prices disappear and a new value term is introduced.

If these redefinitions are considered in a purely formal way as theoretical devices for resolving the transformation problem so as to preserve Marx's intuitively reasonable dicta concerning it, the two alternative solutions seem about equal; possibly, on purely formal grounds, that of R. D. Wolff et al. (1982) would be favored over that of A. Lipietz (1982) and D. Foley (1982), since one additional equality condition is derived in it.

In both cases a connection is sought between the proposed reformulation and Marx's original intentions on the basis of selected passages in his writings. A comparison produces a quite curious result. A certain well-known passage from Capital Vol. 3 is cited by A. Lipietz as support for his proposal to identify the value of labour-power with the variable capital in the transformation problem:¹⁰³

¹⁰³I have substituted the new Penguin translation (1981), which I cite elsewhere, for the older International Publishers edition (1967) which was cited in the translation of A. Lipietz's article. Only minor changes of wording result from this substitution, e.g. 'value product' for 'value', 'distorted' for 'obscured'. The emphasis in this and the next quote is intended merely as a visual enhancement.

"As far as the constant portion of capital is concerned, it is itself equal to cost price plus surplus-value, i.e. now equal to cost price plus profit, and this profit can again be greater or less than the surplus-value whose place it has taken. As for the variable capital, the average daily wage is certainly always equal to the value product of the number of hours that the worker must work in order to produce his necessary means of subsistence; but this number of hours is itself distorted by the fact that the production prices of the necessary means of subsistence diverge from their values." (Capital Vol. 3, p. 261)

Clearly, the significant bit follows the reference to 'variable capital'. Everything here seems to me to depend on how one reads the passage, but the warrant A. Lipietz finds here for his position (no transformation in relation to the value represented by the wage) entails emphasis on the equation Marx makes between the wage and the number of hours worked while submerging the attached condition ('in order to produce . . .') into the background. Reversing the emphasis, a privilege of speech over the written word, strikes my ear as a reiteration of Marx's cost of production thesis. The subsequent clause, like the rabbit-deer drawing, reinforces the ambiguity: It can be read as adding support to A. Lipietz's reading by way of a suspension of the tie between normal hours worked and the hours of labour embodied in the necessary subsistence; or it is meant to be read as modification on the cost of production thesis, requiring that the 'distortion' is a factor in the determination of the price of production.

Turning now to R. D. Wolff et al., we find the following variant of the same passage cited in support of their position of identifying the value of labour-power with its cost of production assessed at prices of production:

"It is clear that what applies to the difference between the cost-price and the value of the commodity as such - as a result of the production process - likewise applies to the commodity insofar as, in the form of constant capital, it becomes an ingredient, a pre-condition, of the production process. Variable capital, whatever difference between value and cost-price it may contain, is replaced by a certain quantity of labour which forms a constituent part of the value of the new commodity,

irrespective of whether its price expresses its value correctly or stands above or below the value. On the other hand, the difference between cost-price and value, insofar as it enters into the price of the new commodity independently of its own production process, is incorporated into the value of the new commodity as an antecedent element." (Theories of Surplus Value Part III, p. 167)

The term 'cost-price' in this context is to be taken, as they suggest, as a synonym for 'price of production', which seems unexceptionable. For their general reinterpretation of value, this passage taken by itself does seem to offer support to the idea of incorporating prices of production on the input side into the value of the commodity produced, hence their emphasis on the word 'value' in the last sentence, giving it the specific sense appropriate to a significant assertion about the category of value. Unfortunately, what seems to me an equal linguistic possibility - a loose, generic usage of the word 'value', without special emphasis - is supported in the next paragraph where Marx goes on to summarize the two ways in which the cost-price [price of production] and value of a commodity diverge, through the difference in cost-price and value of commodity inputs and the divergence between surplus value and profit on the commodity output. On the other hand, the same passage obviously supports their proposal with regard to the treatment of labour-power, but it would support A. Lipietz even better! Here, Marx says quite clearly and without qualification that capital makes up what it pays out for labour-power in the labour performed in production. The irony does not end there, however; the passage from Capital seems to offer more distinct support to R. D. Wolff et al. We need not carry this charade of La Double Meprise any further to conclude that small, but theoretically consequential differences in an area of long-standing dispute will not likely be settled by subtle verbal differences in a text not consciously aimed at resolving them.

In both cases, the redefinition is based in a broader re-evaluation of the interplay of value and value-form in the theory of value, with an emphasis on the role of money as the representative of value. The revision of the standard Marxist approach is, thus, not restricted to the context of difficulties traditionally associated with the transformation problem, as we find, for instance, in an earlier proponent of the idea of identifying the value of labour-power with the wage, or variable capital.¹⁰⁴ Consequently, comparison of the differences in the form of valorisation between the traditional cost of production conception and these newer proposals requires that they be examined in the larger context of their modified concept of value.

The cost of production approach, favoured by Marx, offers an explanation for labour-power's possession of the attribute of value through the commodity form of labour's subsistence requirement which may be viewed as adding a value condition to the maintenance and reproduction of labour-power. The fact that the commoditisation of the process of reproduction is not complete will be taken up subsequently. Here, we are dealing with that part of the process in which labour is dependent on capital. The valorisation process implied by the cost of production interpretation consists in a pure transfer of the value of the commodities consumed to labour-power, which can be likened to the formation of the constant capital portion of the value of a commodity out of the value of the means of production used up in its production. To understand the form of valorisation, however, the notion of a 'transfer of value' must be explicated, just as the notion of

¹⁰⁴D. Laibman, 'Values and Prices of Production: The Political Economy of the Transformation Problem', Science and Society, Vol. 37 No. 4 (Winter 1973-74): 404-36.

'embodied labour' as value must. To be a value, it is not enough, for instance, that labour has been embodied in some object of use. In the case of labour-power, it would be literal nonsense to suppose that the transfer takes place because of consumption, as if value were a natural element of the object of consumption - which would cause the value of labour-power to fluctuate with every accident of consumption. One is forced instead to ascribe the existence of value as an attribute of labour-power to something external to the elements of the consumption process itself. That something is the particular social organisation of the provision of the conditions of labour's reproduction, whereby labour depends on having the property of exchangeability to mediate its access to those conditions - to the extent the requirements take the form of the commodity. If we take the regulation of the exchange value of a commodity by its value (defined as an amount of socially necessary labour) to express the condition of its reproducibility in terms of the interchange of labours conducted through a system of equal exchange - or, its modified form in the capitalist system of production - then the attribution of value to labour-power on the cost of production basis means that value is the value at which labour is able to obtain the level of its reproduction requirements. But as we know from the transformation problem, the equality cannot be maintained in both directions simultaneously.

The redefinitions of the value of labour-power of both the alternatives examined above are derived from a reconceptualisation of the form of valorisation for commodities generally. The specific modification consists of giving explicit recognition to the role of money as a representative of value in the exchange process. As a result, the valorisation of commodities - by which we mean an account of the process by which the value attribute is attached to an

exchangeable object - involves two value terms, which is a significant departure from reckoning value (and price) relations solely in terms of the value embodied in the commodity. Two slightly different avenues have been pursued towards reconceptualising the valorisation process, and as that of Lipietz - Foley is worked out more thoroughly, we take it up first.

D. Foley's (1982) proposal to modify the way in which the valorisation process is usually conceived, by introducing a concept of the 'value of money', is quite similar to one which has taken hold among a number of French Marxists of the 'regulation' or 'Grenoble' school.¹⁰⁵ The approach develops an idea which Marx made use of in practice,¹⁰⁶ but did not incorporate explicitly into his schema or paradigm of commodity exchange. That idea is to treat the money term in a system of monetary exchange as a direct representative of value, i.e. a portion of the abstract socially necessary labour-time of society. This value is not the value embodied in the commodity through production. Nor is it the value contained in money as a commodity, e.g. gold, which also represents a value in production. Rather, the 'value of money' as defined by D. Foley as a claim on a portion of the abstract labour of society; specifically, a unit of money, or equally, a unit of price, is defined as the ratio of total abstract

¹⁰⁵cf. M. Aglietta, A Theory of Capitalist Regulation (London: New Left Books, 1979), Ch. 1 and M. de Vroey, 'Value, Production and Exchange' in The Value Controversy (London: New Left Books, 1981).

¹⁰⁶An example cited by D. Foley is: "We know that the daily value of labour-power is calculated upon a certain length of the worker's life, and that this corresponds, in turn, to a certain length of the working day. Assume that the usual working day is 12 hours and the daily value of labour-power 3 shillings, which is the expression in money of a value embodying 6 hours of labour." (Capital Vol. 1, p. 679)

labour time expended in production over the total price of the whole net commodity product produced by that labour. The following schema shows how the concept of the 'value of money' can be attached to the Marx's analysis in Capital Vol. 1 of the progressive development from the commodity to money, which ended with money as a pure medium of exchange. We start with the simplest form of exchange between two commodities (C – C), and then bring in the money commodity **M**, which has its own value in production l_m^* :

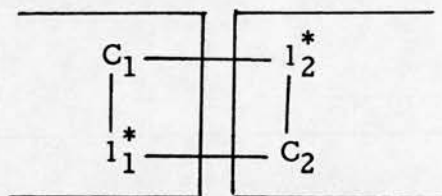


Figure 7.

The schema of direct commodity exchange (C – C) was expanded by Marx to the system of monetary exchange (C – M – C), in which the role of money need hardly be considered except as the medium of exchange; that is, money appears as mere mediator of the equal exchange between the two end terms.¹⁰⁷ Note that in the expanded schema we have introduced the price term explicitly, treating it as an attribute of the commodity 'existing before the physical act of exchange, in accordance with the contrast between price, characterised by Marx as "a purely ideal or notional form," and actual

¹⁰⁷ Capital Vol. 1, p. 223. This occurs even before the final stage of Marx's account of the development of money into tokens or symbols of money. The splitting of the nominal and real content of money is described as already latent in circulation (p. 222-23), because once it is in circulation, it functions to "always represent the realized price of some commodity" (p. 204). "Their function as coins is therefore in practice entirely independent of their weight, i.e. it is independent of all value." (p. 223)

money used in exchange.¹⁰⁸

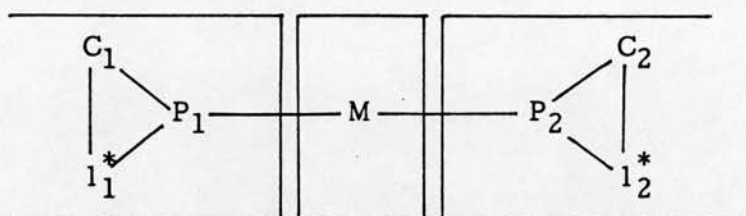


Figure 8.

D. Foley's concept of the 'value of money' l_m^* is now entered as a value attribute of M , the actual money in the exchange.

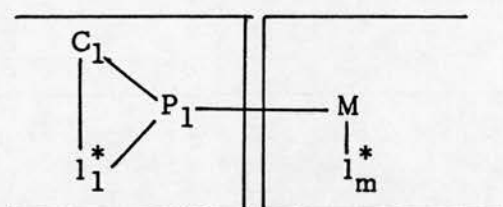


Figure 9.

The purpose of bringing out to view this infrequently regarded aspect of money in Marx's theory of value is to free the latter from the constraint of relating money and prices to value as labour directly in each commodity, since this form of the value theory runs into awkward problems as soon as there is any deviation in prices from values. Instead, through the concept of the 'value of money', which associates to each commodity a value in exchange in contrast to the value it possesses in production, D. Foley proposes to preserve the general connection posited by the theory of value between prices and social labour. Recasting the theory of value to include his notion of the 'value of money' gives it a form which can incorporate any number of deviations between prices and values, arising from more specific

¹⁰⁸Capital Vol. 1, p. 189.

levels of the analysis of the determinants of prices, as well as accidents and anomalies, without these impairing the validity of the theory.¹⁰⁹ The effect on the theory of value of this reorientation towards the monetary aspect is summed by him in these terms:

"If we interpret the value of money as the ratio of aggregate direct labor to the aggregate value added, we retain at the global level the relation between money and embodied labour which is central to the idea that money is a form of value and that the substance of value is abstract social labour. This interpretation requires us to distinguish in any commodity the labour value produced by the expenditure of direct labour from the money value added realized in the sale of the commodity, the difference being value gained or lost in exchange. With the proposed definition of the value of money, this value gained or lost through unequal exchange may be positive or negative for any particular commodity or group of commodities, but is zero for the system of commodity production as a whole; in this interpretation value is created in production and conserved in exchange." (D. Foley, 1982, p. 41)

In the case of labour-power, which is valorised through the wage, the value attribute can now be derived, as in A. Lipietz (1982), from the claim on social abstract labour which is associated with the wage as a price or a monetary sum. In this approach the specific formulation of the value of labour-power is not restricted to 'the wage share of the new value added', which is the formula we have already seen employed by Lipietz (1982) in the transformation problem. It can be defined in a number of ways. The value of labour-power may be defined as the money wage multiplied by the value of money, which translates into the value paid per hour of labour-power sold. If an hour of labour-power sold is equal to an hour of labour-time entering as value in the product, then this value of labour-power is interpretable as the 'wage share of value added' (Lipietz' usage). If the average wage is multiplied by the value of money, the result is the

¹⁰⁹D. Foley, *ibid.*, p. 38.

share of wages in aggregate value added, on the assumption, again, that one hour of labour power sold equals one hour of actual labour time.

D. Foley cautiously points out that the modification affects only the definition of the value of labour-power. The question of its determination - the level of this value - remains an open question, to which one possible response is its regulation by the subsistence standard. Such an account, however, would be set in terms of the money cost of the commodities involved.¹¹⁰ A. Lipietz similarly considers the possibility of a determining role for the consumption bundle in the form of a "feedback from the historical standard of living" to the value of labour-power.¹¹¹ In effect, the subsistence requirement cum historical standard of living has been re-routed theoretically from its direct function in constituting the value of labour-power to a use-value level where it serves as a criterion of adequacy for the level of the money wage.

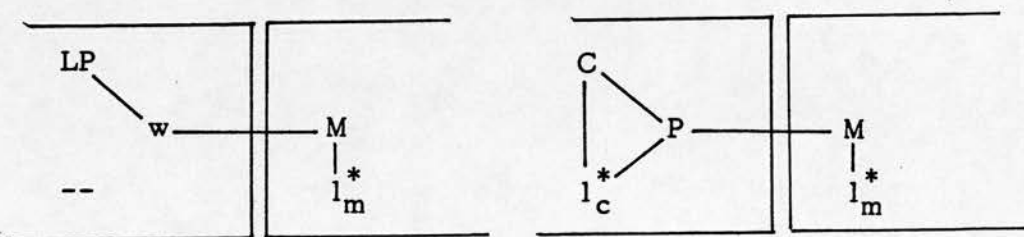


Figure 10.

The resultant form of valorisation in the proposed redefinition of the value of labour-power is peculiar to labour-power. The difference is shown here with the schematic

¹¹⁰D. Foley, *ibid.*, p. 38 and 46.

¹¹¹A. Lipietz, *ibid.*, p. 73.

used previously, with the dashes (--) indicating the absence of the term for the 'value of production' of labour-power. Its place is possibly taken up by the subsistence requirement as a determinant, but not ^a value.

Given the most frequent criticism of Marx's cost of production formulation, that labour-power is not in fact a commodity produced under normal capitalist conditions of production, this difference is not an anomalous one. The redefinition of the value of labour-power, which attributes value to labour-power in the process of exchange, renders it similar to the special case in value theory of the non-produced commodity, which has a price but no value.

"Things which in and for themselves are not commodities, things such as conscience, honour, etc., can be offered for sale by their holders, and thus acquire the form of commodities through their price. Hence a thing can, formally speaking, have a price without having a value. ; The expression of price is in this case imaginary, like certain quantities in mathematics. On the other hand, the imaginary price-form may also conceal a real value-relation or one derived from it, as for instance the price of uncultivated land, which is without value because no human labour is objectified in it." (Capital Vol. I, p. 197)

Further examples are cited, such as works of art and antiques, which do involve labour in their production but not the possibility of regular reproduction. The only stipulation in such cases for having a price, in Marx's view, is that "it simply has to be capable of being monopolised and alienated."¹¹² Commodity-value, on the other hand, involves not only production but also the possibility of regular reproduction under capitalist conditions of production. Since the system of production for exchange provides the social form for objects to become commodities, these examples of commodities without value, but having a price, are

¹¹²Capital, Vol. 3, p. 893.

parasitic instances.¹¹³ The intermediate character of labour-power is evident in the fact that, on the one hand, it is subject to the necessity of a regular reproduction, one which also involves a relation to value in the commodity form of its subsistence requirement. Yet, on the other hand, as we have noted before, the labour-power is not created in the same sense as other reproducible commodities, i.e. through a labour process oriented to the creation of an exchangeable commodity.

Valorisation of labour-power in the case of R. D. Wolff et al. (1982) is obtained in both forms: a value in production and a value in exchange. The difference, compared to D. Foley's and A. Lipietz's approach, is achieved only nominally. In the approach of Wolff et al., labour-power derives a value through the consumption requirement as a consequence of their modified definition of value (cf. Eq. 13). Since the only inputs counted towards its reproduction of labour-power are the commodity elements of consumption, their prices of production are simply passed through into labour-power, where it becomes value, as per their definition of value. Note that the value of labour-power is not identified with the value of these commodities, but their prices of production, which generally diverge from the values in their system; so the effect is the same as in the previous definition.

D. Foley offers a number of substantive arguments for the shift in the definition of the value of labour-power in addition to the effect it has on the transformation problem.¹¹⁴ One result of equating the

¹¹³See Geoffrey Kay, 'Why Start from Labour?', Critique No. 7 (Winter 1976/77), pp. 55-6, for discussion on this point.

¹¹⁴D. Foley, op. cit., pp. 42-3.

value of labour-power to the wage paid is that a reasonable correspondence is obtained to actual accounting practices in capitalist firms in that a 'gross profit' figure is arrived at by the subtraction of the wage and other non-wage costs of production from the total sales revenue. Insofar as divergences between prices and values consist of redistributions of surplus value through the equalisation of profit rates, he would expect the correspondence of gross profit with surplus value to improve with the scale of aggregation over capitalist firms, since the unequal exchanges cancel each other. At the aggregate level, these and other 'deformations' of the price/value relation would not disturb the equality of profit and surplus value. Most importantly, he would regard the non-equality of the value of labour-power with the value of the subsistence as constituting a theoretical advantage not only on grounds of greater realism (because workers bargain over wages, not directly over consumption), but also in allowing exploitation to be defined in a more form-specific way vis à vis capitalism: The identification of exploitation with the existence of a surplus product is abandoned in favour of a description of exploitation in its monetary form, as the distinction between paid and unpaid labour time.

D. Foley draws an interesting theoretical possibility out of the last point. When the value of labour-power is defined through the money term (the wage), and thereby identified with a share of the net product of labour, the struggle between capital and labour over the wage level is implicitly a struggle over the disposition of the net product between surplus value for capital and paid labour time, potentially free for other uses. The abolition of exploitation is theoretically set in terms not of the absence of a surplus product through its absorption into 'necessary' consumption, but as a reallocation between capitalist and potentially non-capitalist uses.

The Extent of Commoditisation in the Reproduction of Labour-Power

In any of the versions above, the valorisation of labour-power completes the circuit of value, and the theory of value describes a closed system, from the point of view of the reproduction of capital, which runs from production through distribution and consumption back to production. From the point of view of the cycle of reproduction of labour-power, the theory of value covers only that part of its reproduction process which concerns the realisation phase of capital's commodity output. Thus, as was made clear in the discussion of the form of valorisation of labour-power (as cost of production), its reproduction process is only a partially valorised one - a fact which is congruent with the observation that labour-power is not the product of a capitalist production process. Two possible situations can be considered: one where the labour's means of subsistence only marginally takes the form of commodities, e.g. the possession of a garden allotment, and the other, the pure type of the worker under capitalism where the means of production are absolutely lacking. A view which could be taken of the gradation of possible situations between these extremes is that of the extension of the capitalist form of production over the whole social field, its subsumption under the value-form. Through the conception of the unity of production and consumption set out in the Grundrisse, capitalist development could be viewed as a process of the creation of a distinct sphere of the 'economic', through the separation of the moments of production and consumption and the absorption of productive activities under commodity production. With the expansion of the field of capitalist production, reflected in the monetisation or commoditisation of the

social field (the bulk of which consist of the activities of production and consumption), the 'economy' emerges as a totalising expression, defining its own opposite, the 'non-economic', out of the remaining social field. The latter becomes, by definition, the dependent and amorphous 'sphere of consumption', reducing the field of non-value producing activities of domestic, community and public life to a 'non-productive' appendage of the economic, but one which is nevertheless a necessary, functional phase of it.

In fact, as a field of social activity, the sphere of consumption is productive in the general sense, even productive of wealth (in the general sense Marx uses, meaning material wealth). By referring the question of the degree of commoditisation of subsistence to that fluid substratum of Marx's analysis of capitalist society, human praxis, a context is provided for contrasting different modes of organisation of the social field. The commoditisation of the worker's subsistence, for example, can then be viewed as a specific mode of provision, in a continual process of perpetual extension (or contraction), as various bits of productive activity are moved in and out of domestic, community and public life. Conceptualising the degree of the labour's material dependence on commodities within the totality of their reproduction process as a variable phenomenon, the limited character of the concept of the 'value of labour-power' as the expression of the process of the reproduction of labour-power within the theory of value is made manifest.

Summary

In this first part of the thesis we have explored the concept of the value of labour-power, both in the specific form given it by Marx in his 'cost of production' thesis and its articulation with the rest of the theory of value. As is often the case with Marx, his conception of the value of labour-power is a many-sided thing, directed to several simultaneous issues. The core of the concept expressed in his 'cost of production' thesis is capital's ability to secure its condition and motive for existence, i.e. surplus value, through the extension of the commodity-form to labour-power. While this requires only the existence of surplus value as a difference between what labour produces for capital and what labour receives back in the form of the wage, the 'cost of production' thesis provides a specific formulation of the self-perpetuating position of labour under capital. The thesis holds that wages tend to a level which is no more than that necessary to reproduce labour-power and that this level can be expressed in value terms as the value of labour-power. Thus, two conceptual issues stand out when reconsidering the validity and use of Marx's basic wage-determination formula in political economy: (1) in what sense wages are at their necessary level, and (2) whether a value interpretation is applicable.

'Necessity' proves to be a very elastic thing within Marx's 'cost of production' interpretation of the value of labour-power. Even when we simplify the question by setting aside the questions of differences in skill and the generational reproduction of labour-power and concentrate on the maintenance of labour-power so as to focus on the general form of Marx's conception, we find his conception of necessity taking on a multiplicity of forms. While the value of labour-power is

defined relative to the socially and historically determined needs of the labourer, the idea of the necessary wage is subject to a peculiar inversion as the scale of actual consumption is indefinitely extended. It begins to make more sense to conceive the necessary wage as the value of labour-power capital has to pay to obtain its supply of labour-power. This inverted sense of the 'cost of production' of labour-power appears to be the sense of the example when Marx discussed the high wages of American workers. However, such an inversion obscures two aspects of the situation. First, a wage level supporting a higher standard of consumption is no transcendence of labour's dependence on capital since the satisfaction of primary needs remain just as contingent on employment. Second, analysis of a socially determined standard of necessity increasingly removed from the level of bare physical adequacy requires specific study of how and to what extent necessity is structured into the sphere of individual consumption.

The inverted form of the 'cost of production' thesis and definition of the value of labour-power cannot be banished from the field of inquiry in this way, however. The concept of the value of labour-power depends for its validity not only on the phenomena, but also on its interconnection with other value categories. While the extended discussion of variations on the transformation problem here does not univocally point the finger at Marx's definition of the value of labour-power as the source of the quandaries of value theory, it does reveal an internal difficulty in relating the value of labour-power to the wage on the 'cost of production' basis when commodities exchange at prices of production. The resolution of this difficulty, suggested by the recent 'abstract labour' current in value theory, abandons the 'cost of production' conception of the value of labour-power, rebasing

it on the labour's share in the value added in production. While shifting the definition of the value of labour-power to what capital must pay to obtain labour-power inverts the previous conception, it does not actually exclude the substance of the 'cost of production' thesis. The change removes only the specific value-theoretic form of the thesis which Marx employed, so that this version of the value of labour-power leaves open the question whether the wage is related to consumption and the reproduction of labour-power on the basis of necessity.

The following sections consider further problems in the use of the value of labour-power concept as a theoretical medium for the analysis of the sphere of consumption. The skilled labour debate in the next section provides the vehicle for considering problems which concern simultaneously the validity of the theory of value vis à vis the heterogeneity of labour and the adequacy of the value of labour-power in the face of stratification of living standards in the sphere of consumption. While the same order of problems for value theory as a whole were not found to be raised by the domestic labour debate, the phenomenon of the dual wage raises a significant problem concerning the appropriate social unit for the definition of the value of labour-power. Only in the final section do we turn to questions of how the value of labour-power concept can be used in the analysis of the sphere of consumption itself.

PART TWO

THE SKILLED LABOUR DEBATE

The second constituent moment in Marx's analysis of the value of labour-power concerns the old problem of skilled labour, which has long been a problem in Marxist theory. The concerns of this study, as we examine some quite different approaches, are threefold. Firstly, skilled labour has been a classic stumbling block of traditional Marxist value theory, and this necessarily affects the viability of the value of labour-power concept in the analysis of the sphere of consumption. Secondly, the discussion of skilled labour leads us to the general problem of the theory of value's capacity to incorporate a differentiated category of labour-power.

Two kinds of difference between labour-powers determine the object of theoretical concern raised by the problem of skilled labour: differences in the value paid for labour-power (the wage) and the value created by different labour-powers. The special feature of the problem of skilled labour as Marx treated it is the relation of proportionality he posited between the two sides, implying some direct link between the two aspects. Apart from any concern here with the resolution of the particular problem of skilled labour and the validity of Marx's proposed solution, our third concern is the implication for the analysis of stratification in the sphere of consumption of the differential treatment of labour-power in value theory.

To understand how skilled labour came to be a classic area of debate in Marx's theory of value and what is theoretically at issue, we go back to the original definition of the problem; in particular, we consider the question of why skilled labour, as only one of many concrete differences between workers, should be singled out for special treatment.

In Theories of Surplus Value, Marx took up the problem from one of Ricardo's critics, but treated it as a minor problem in the labour theory of value. Both the original form of the problem and Marx's characteristic response are contained in the following passage:

"His [Bailey's] last objection is this: The value of commodities cannot be measured by labour-time if the labour-time in one trade is not the same as in the others, so that the commodity in which, for example, 12 hours of an engineer's labour is embodied has perhaps twice the value of the commodity in which 12 hours of the labour of an agricultural labourer is embodied. What this amounts to is the following: A simple working-day, for example, is not a measure of value if there are other working-days which, compared with days of simple labour, have the effect of composite working-days. Ricardo showed that this fact does not prevent the measurement of commodities by labour-time if the relation between unskilled and skilled labour is given. He has indeed not described how this relation develops and is determined. This belongs to the definition of wages, and, in the last analysis can be reduced to the different values of labour-power itself, that is, its varying production costs (determined by labour-time)." (Theories of Surplus Value, Part III, p. 165)

The evident problem is the association of different amounts of exchange-value, i.e. commodity price, with a single amount of labour-time and Bailey considered this fact invalidating to the theory that labour-time was the measure of value. Ricardo himself recognised the problem, as Marx points out, and 'showed' that labour-time could provide the measure of the value. In fact, Ricardo referred to the market for a solution. The relevant passage in Ricardo is this:


"The estimation in which different qualities of labour are held, comes soon to be adjusted in the market with sufficient precision for all practical purposes, and depends much on the comparative skill of the labourer, and intensity of the labour performed. The scale, when once formed, is liable to little variation. If a day's

labour of a working jeweller be more valuable than a day's labour of a common labourer, it has long ago been adjusted, and placed in its proper position in the scale of value." (Ricardo, Principles, pp. 20-1)

We shall see that Marx's response clearly echoes that of Ricardo, but we need to consider the ramifications for his theory as laid out in Capital:

"More complex labour counts only as intensified, or rather multiplied simple labour, so that a smaller quantity of complex labour is considered equal to a larger quantity of simple labour. Experience shows that this reduction is constantly being made. A commodity may be the outcome of the most complicated labour, but through its value it is posited as equal to the product of simple labour, hence it represents only a specific quantity of simple labour. The various proportions in which different kinds of labour are reduced to simple labour as their unit of measurement are established by a social process that goes on behind the backs of the producers; these proportions therefore appear to the producers to have been handed down by tradition." (Capital Vol. 1, p. 135)

In a footnote to this passage,¹ Marx alerts the reader to the fact that he is not speaking here of the value the worker receives, but of the value of the commodity the worker produces. That is to say, he now appears to separate the two aspects of the problem where Ricardo had treated the wage received, on the one side, as the index of comparison between qualitatively different labours. Marx, on the other hand, is here differentiating the two aspects in accordance with his distinction between labour and labour-power. Thus, it appears more clearly in Marx's account that the problem is built on two distinct commodities, which implies the existence of two reduction problems, rather than one.

Nevertheless, in  a subsequent passage, the one most frequently cited on this issue, and which we may take to be the

¹Capital Vol. 1, p. 135 n. 15.

formulation of his 'skilled labour thesis', the two sides of problem are re-knit:

"All labour of a higher, or more complicated, character than average labour is expenditure of labour-power of a more costly kind, labour-power whose production has cost more time and labour than unskilled or simple labour-power, and which therefore has a higher value. This power being of higher value, it expresses itself in labour of a higher sort, and therefore becomes objectified, during an equal amount of time, in proportionally higher values." (Capital, Vol. 1, pp. 304-5)

and to the same effect in Volume 3:

"Other distinctions, for instance in the level of wages, depend to a large measure on the distinction between simple and complex labour that was mentioned already in the first chapter of Volume 1, p. 135, and although they make the lots of the workers in different spheres of production very unequal, they in no way affect the degree of exploitation of labour in these various spheres. If the work of a goldsmith is paid at a higher rate than that of a day-labourer, for example, the former's surplus labour also produces a correspondingly greater surplus-value than does that of the latter." (Capital, Vol. 3, p. 241)

While definitely cognisant of the need to make the reduction, Marx saw no great problem in it² and opted for the simplifying assumption:

". . . in every process of creating value the reduction of the higher type of labour to average social labour, for instance one day of the former to x days of the latter, is unavoidable. We therefore save ourselves a superfluous operation, and simplify our analysis, by the assumption that the labour of the worker employed by the capitalist is average simple labour." (Capital, Vol. 1, p. 306)

What are the actual problems raised by the difference of skilled versus unskilled, or simple, labour-power? If we take Bailey's critique of Ricardo as the starting point, it is evidently a violation of principle to regard labour-time as the measure of value and then attribute more value to one person's labour-time than another's. It would, in Bailey's

²Capital, Vol. 1, p. 306 including n. 20, citing J. Cazenove's Outlines of Political Economy.

words, "destroy the integrity of the rule"³ As stated, however, this critique is too narrowly conceived since it is an obvious and sufficient answer to give the (quantitative) relation between the qualitatively different labours, just as Ricardo and Marx claimed was possible.

The critique of the labour theory of value is made much more sharply by Böhm-Bawerk. It is the charge of circular argument, which he felt vitiates Marx's theory of value. With an eye clearly fixed on the question of validity, he thought that referring the question of the reduction of complex to simple labour to the proportions handed down by tradition - quoting Marx's words: "established by a social process that goes on behind the backs of the producers" - was to appeal to the very thing, the observed exchange values, which the theory is intended to explain:

"Here we stumble against the very natural but for the Marxian theory the very compromising circumstance that the standard of reduction is determined solely by the actual exchange relations themselves."⁴

Not everyone accepts that the theory has a genuine problem of circularity of argument on this score,⁵ although many Marxist writers have taken up Böhm-Bawerk's challenge directly by attempting to provide a reduction rule without reference to exchange-values, the prices of the commodities produced or wage differentials, in deriving

³Theories of Surplus Value, Part III, p. 166.

⁴E. von Böhm-Bawerk, Karl Marx and the Close of His System (1896), in P. Sweezy, edit., 1975, p. 83.

⁵cf. A. Brödy, Proportions, Prices and Planning: A Mathematical Restatement of the Labour Theory of Value (Amsterdam: North-Holland/American Elsevier, 1970), p. 84: "A circular definition, a definition that defines some concept in terms of itself, idem per idem, was considered a grave fault by classical logic. But self-contained (closed) systems require circular definitions and modern scientific experience has demonstrated their power."

the required proportions. Before reviewing the solutions, we consider Marx's intention in these passages more closely.

The textual evidence pointed out by A. Roncaglia (1974), regarding precisely the passage selected by Böhm-Bawerk, imply that Marx was not in fact discussing the method of reduction; rather, he was establishing the view that the reduction process (however its operation is to be described) was a real social process.⁶ On this crucial textual point, an explicit statement of Marx's intention is to be found in a corresponding passage in his earlier Contribution to the Critique of Political Economy (1859):⁷

"The laws governing this reduction do not concern us here. It is, however, clear that the reduction is made, for, as exchange-value, the product of highly skilled labour is equivalent, in definite proportions, to the product of simple average labour; thus being equated to a certain amount of this simple labour." (Contribution to the Critique of Political Economy, p. 31)

If this is so, then the question may be posed of why the reduction rule is of any concern. R. Rosdolsky (1968) gives the most perspicuous answer: It is ^{an} important matter substantively, but not crucial to the theory of value. His response is unusual. More often one finds the terms of Böhm-Bawerk's challenge accepted - that such a reduction rule for the different kinds of labour is a sine qua non for a labour theory of value - and attempts are made to fill the gap by providing such a rule. Evidently, this preoccupied a number of early Marxists, such as Karl Kautsky, Conrad Schmidt, Eduard Bernstein,

⁶A. Roncaglia, "The Reduction of Complex Labour to Simple Labour," Bulletin of the Conference of Socialist Economists, No. 9 (Autumn 1974).

⁷R. Rosdolsky makes the same point with regard to the sense of Marx's expression 'to count as', as in skilled labour counting as a multiple of simple average labour: It should be taken as a reference to the actual equalisation process and not the question-begging shorthand which Böhm-Bawerk has read into it. R. Rosdolsky, The Making of Marx's 'Capital', 1977, p. 514)

Rudolf Hilferding (1904), H. Deutsch, Otto Bauer, Louis Boudin (1907), A. Bogdanov, V. N. Posniakov, I. I. Rubin (1928).⁸

More recently it has been taken up by M. Morishima (1973), Bob Rowthorn (1974), A. Roncaglia (1974), S. Bowles and H. Gintis (1978), and certainly others.

Böhm-Bawerk posed the question inaptly according to Rosdolsky.⁹ The reducibility question is not unique to skilled labour. The principle, or process, is of general relevance to Marx's discussion of equalisation of different labours through commodity exchange between different products in capitalist society. In Marx's theory of value, the reduction process is to be treated in principle and in general through the category of 'abstract labour', which reflects the quantitative relating of different labours through the process of exchange. All manner of concrete differences between labours are 'reduced' to, one may also say 'equalised' as, quantities of labour in abstraction from their concrete differences. Thus, skilled labour is but one difference among others, and the issue is not, as Böhm-Bawerk had it, to prove the possibility of the reduction of one kind of labour to another (on some independent, inherent basis), but rather of describing the 'laws' pertaining to particular cases as they arise under capitalism. To insist, as Böhm-Bawerk does, on an a priori standard of reduction - to validate, in effect, what occurs in the market - is to have begun in the first instance from an inappropriate naturalistic, and not a social, conception of the labour theory of value.

⁸R. Rosdolsky, *ibid.*, p. 517. I. I. Rubin (1928) lists others besides, p. 159-71.

⁹*Ibid.*, p. 509-10.

Where Marx took the matter up again in Volume 1, he proposed to treat the question of skilled^{labour} in terms of differences in the value of labour-power attributable to the "cost in time and labour" of more complex labour over unskilled or simple, average labour-power (labour-power without any special training). The more highly valued labour-power of the skilled labourer performed a labour of "a higher sort," that is to say, "becomes objectified, during an equal amount of time, in proportionally higher values."¹⁰ The reasons for the different effect of skilled labour was not, evidently, inherent in any naturalistic sense to the exercise of the skill, for in a footnote to the passage, Marx observed that:

"The distinction between higher and simple labour, 'skilled labour' and 'unskilled labour', rests in part on pure illusion or, to say the least, on distinctions that have long since ceased to be real, and survive only by virtue of a traditional convention; and in part on the helpless condition of some sections of the working class, a condition that prevents them from exacting equally with the rest the value of their labour-power. Accidental circumstances here play so great a part that these two forms of labour sometimes change places. . ." (Capital, Vol. 1, p. 305 note 19)

Marx's intention lies somewhere between the apparent enunciation of a 'law' of value and the withdrawal of much of its substantial content in practice. While there is no problem of taking the reduction rule as a secondary modification of a more basic value category, no different than Marx's treatment of other value categories, which are also subject to various contingencies (i.e., further concrete determinations), Marx's resolution of the question seems quite peculiar in this case. By what rationale can it be said that the higher valuation placed on the skilled labourer (the value of that labour-power) is reflected proportionally in the value of its product? We will

¹⁰Capital Vol. 1, p. 304-5.

refer to it as the 'dual proportionality thesis. It has the appeal of simplicity in the type of example he chose to exemplify it with. The skilled artisan, e.g. a goldsmith, as seller of his own product, with a product which commands a higher price (value) than someone else's, has a correspondingly higher income. The revenue in petty commodity production is the wage, more or less. The generalisation of the relation depends on an additional element, unmentioned as yet, which Marx introduced as the equalisation of rates of exploitation.

"If capitals that set in motion unequal quantities of living labour produce unequal amounts of surplus-value, this assumes that the level of exploitation of labour, or the rate of surplus-value, is the same, at least to a certain extent, or that the distinctions that exist here are balanced out by real or imaginary (conventional) grounds of compensation. This assumes competition among the workers, and an equalization that takes place by their constant migration between one sphere of production and another. We assume a general rate of surplus-value of this kind, as a tendency, like all economic laws, and as a theoretical simplification; but in any case this is in practice an actual presupposition of the capitalist mode of production, even if inhibited to a greater or lesser extent by practical frictions that produce more or less significant local differences, such as the settlement laws for agricultural labourers in England, for example. In theory, we assume that the laws of the capitalist mode of production develop in their pure form. . ." (Capital Vol. 3, p. 275)

The equalisation of rates of exploitation is presented by Marx as both a simplifying assumption in the context of the transformation problem and as an observable law in its own right. As a law, Marx grounded the process of equalisation in the existence of competition among the workers and their mobility between jobs. The process need not be viewed as dependent on workers' consciousness of their rates of exploitation. Knowledge of relative wage-rates for equal conditions of production and relative profitability might be a sufficient condition. Marx could also have referred to competition between capitals on the grounds capital being able to pay higher wages for labour which had for them a value-enhancing effect (e.g., greater profitability). With

the equalisation of rates of exploitation or surplus value, the dual proportionality of wages and value created can be given a rough demonstration, but it would not be a very precise statement of the relation, as can also be shown.

We borrow Marx's usual notation for the analysis of the value components of a commodity, with subscripts designating different commodities, with each commodity the product of a single producer. C is the constant capital used up, V the value paid to the labourer, and S the surplus-value yielded by the labour to produce the quantities Q of the commodities:

$$Q_1: C_1 + V_1 + S_1$$

$$Q_2: C_2 + V_2 + S_2$$

We suppose that rates of surplus value (S/V) are equal and expressible as a proportion of the variable capital ($a \cdot V$), so that the two value expressions may be rewritten as:

$$C_1 + V_1 + aV_1 \quad \text{or:} \quad C_1 + (1+a) V_1$$

$$C_2 + V_2 + aV_2 \quad \text{or:} \quad C_2 + (1+a) V_2$$

If we suppose the commodities exchange in the quantities (Q_1 and Q_2) at which value in exchange is equal:

$$C_1 + (1+a) V_1 = C_2 + (1+a) V_2 \quad \text{for } Q_1 \longleftrightarrow Q_2$$

then the assumption of an equalisation of the rate of exploitation determines that the proportionality relations are the same for both the newly created values ($V + S$) and the payment to labour (V):

$$\frac{(1+a) V_1}{(1+a) V_2} = \frac{V_1}{V_2}$$

But there is no inherent necessity in the exchange relation for such an equality; that is to say, the commodities may be exchanged at their values without the dual proportionality between the ratios of the value created (the valorisation of the labour performed) and the payment for labour-power. Value in exchange can be equal without the equality of *a* and *b*:

$$C_1 + (1+a) V_1 = C_2 + (1+b) V_2 \text{ for } Q_1 \longleftrightarrow Q_2$$

Other than its role as a simplifying assumption in the transformation problem, no strong rationale appears to exist for the link Marx forged between the two proportionalities. Indeed, S. Bowles and H. Gintis (1977) have shown in the model they developed for heterogeneous labour values without reduction that this simplifying assumption is not even necessary for the transformation problem.¹¹

Out of Marx's legacy of the skilled labour problem has spun a kind of sub-tradition, in which each contributor starts with the same problem as laid out here and proceeds either to offer their own solution or a reinterpretation of the terms of the problem. Our aim is to link the 'discoveries' as to the nature of the problem generated in this process to our own queries concerning the appropriate usage of the value of labour power concept. We were also concerned in this phase of the discussion to explore the dimension of the formal representation of value theory (with a focus on the value of labour-power) in light of the contrast between the Sraffian and abstract labour approaches.

¹¹S. Bowles and H. Gintis, "The Marxian Theory of Value and Heterogeneous Labour: A Critique and Reformulation," Cambridge Journal of Economics, Vol. 1 No. 2 (March 1977): 173-92.

The subsequent debate has not solely been concerned with the correct form of the reduction principle, but also with its role in the theory of value. R. Hilferding's (1904) solution presents the standard, much debated approach, which aimed to provide a direct response to Böhm-Bawerk's critique. It was reworked by Bob Rowthorn (1974 and 1979) within the Sraffian framework. Both his statement of the problem and the solution may be compared with the different analyses of M. Morishima (1973), S. Bowles and H. Gintis (1977), I. Steedman (1977), all more or less within the Sraffian framework. Here, we limit the comparison to the distinct contribution of Bowles and Gintis as well as the critique of the neo-Ricardian handling of the problem by S. Himmelweit (1984) and S. Mohun (1985). Finally, we consider a newer alternative from U. Krause (1982), which aims at a synthesis of the formal apparatus of the Sraffian approach and the abstract labour interpretation of value theory.

The Hilferding Solution¹²

Hilferding (1904) attempted to provide a derivation of the reduction rule for skilled labour stay^{-ing} strictly within the framework of the theory of value; that is to say, he sought a solution which generated the proportions out of the terms and categories of value theory itself. Thus, even although he regarded Böhm-Bawerk's critique as a misconstrual of Marx in Capital, he took up the question of how a homogeneous measure of value could be established over qualitatively different labours. If the result seems rather farfetched, the attempt is

¹²R. Hilferding, 'Böhm-Bawerk's Criticism of Marx' (1904). In P. Sweezy, ed., Karl Marx and the Close of His System [by] Böhm-Bawerk. Reprint (London: Merlin Press, 1975), pp. 140-1.

nevertheless interesting because it reveals some of the difficulties posed by the phenomenon.

Hilferding first establishes that the demand by Böhm-Bawerk for reduction proportions based on some inherent difference between skilled and unskilled labour, as a supposed independent basis for explaining or deriving the relation between commodity prices, misconstrues the nature of Marx's theory. Such an approach overlooks the social nature of commodities and their value:

"When, however, Böhm-Bawerk inquires, what is the quality inherent in skilled labor which gives that labor its peculiar power to create value, the question is wrongly stated. The value-creating quality is not per se inherent in any labor. Solely in conjunction with a definite mode of social organization of that process of production does labor create value. Hence, we cannot attain to the concept of value-creating labor merely by contemplating isolated labor in its concreteness. Skilled labor, therefore, if I am to regard it as value-creating, must not be contemplated in isolation, but as part of social labor."
(R. Hilferding, 1975, pp. 140-1)

Thus, the correct method is to pose the question as what skilled labour is "from the social standpoint?"¹³ Hilferding's answer to this is that the relation between skilled and unskilled or simple labour follows the same general form as the law of value which regulates the process of production and distribution in a commodity producing society. The theoretical gap of the lack of specification of the ratios which reduce skilled and unskilled labour to a common denominator is a serious one, in his view, but the consequence is the incompleteness, not the invalidation of the theory, as Böhm-Bawerk supposed.

In a sideswipe at E. Bernstein (1899-1900) on the question of whether the existence of surplus value was compatible with the higher wage of skilled labour, Hilferding took the position that any deduction

¹³Ibid. p. 141.

of a higher value-creating capacity of skilled labour from the higher wage would be invalid. The wage, or the value of labour-power which it reflects, does not inform one as to the value of the product of labour without a knowledge of the rate of exploitation; and he felt that if the rate of exploitation were known for unskilled labour, one could not assume it to be identical for skilled labour.

Hilferding's solution expands on the 'cost of production' idea only schematically outlined by Marx. While his actual focus is the differential value created by skilled labour, his solution happens to preserve the link Marx proposed between the value of labour-power and the value created by it. Hilferding based his approach on the social existence of labour-power as a commodity in proposing that both the value of skilled labour-power and its higher value-creating aspect could be understood as the result of the (unskilled) labour which went into its formation:

"Average unskilled labor is the expenditure of unskilled labor power, but qualified or skilled labor is the expenditure of qualified labor power. For the production of this skilled labor power, however, a number of unskilled labors were required. These are stored up in the person of the qualified laborer, and not until he begins to work are these formative labors made fluid on behalf of society. The labor of the technical educator thus transmits, not only value (which manifests itself in the form of the higher wage), but in addition its own value-creating power. The formative labors are therefore latent as far as society is concerned, and do not manifest themselves until the skilled labor power begins to work." (R. Hilferding, 1975, pp. 144-5, emphasis his)

This appears at first sight a strange way to proceed. An obvious, but minor objection is that the labour of instruction or training is itself skilled, not unskilled. But Hilferding has taken this into account by positing a recursive solution in which skilled contributions to the formation of skilled labour-power ^{selves} are ~~them-~~ to be

reduced in the analysis to unskilled (and other skilled) components.¹⁴ The approach is reasonable on some grounds to be explored here, but not on others.

Clearly, Hilferding's solution conforms to the conception of value as the mediating element between separate, private processes of production in a capitalist mode of production. He proposes, in effect, to extend the domain of the law of value, further and more explicitly than Marx, to encompass the labour required for the formation of skills. The net is extended to include those who perform the labour of teaching and training into the social division of labour coordinated or organized by value. Skill is thereby accounted as a reproducible social product. In this respect, Hilferding follows Marx's distinction between reproducible commodities as the primary object^{of} the theory of value and the exceptional cases, such as works of art, which merely take on the form of value. The question of how this formative labour is organised, however, whether analogously to independent commodity production or on a capitalistic basis or, most importantly, by the state is not dealt with.

Hilferding's neglect of this point leaves an oft-noted gap in the intelligibility of his solution. Since labour-power is not constituted as a commodity produced and sold for profit by the producer (the educator), instead, it is the skilled labour who realises the higher value of this labour-power (through the wage), the mediating role of value appears to lack the relevant connection to the labour it is supposed to regulate. Why should the labor of the educator be valorised in the labour-power of the skilled labourer in accordance

¹⁴Ibid., p. 146.

with the amount of formative labour? No exchange relation exists whereby the payment of a higher wage to the skilled labourer can constitute payment for the cost of the process of his or her education, because the educator as producer is not a participant in the process of exchange (the wage-relation). And this connection would seem to be necessary to any claim of a process of social validation effected through value. The only labour which can be posited as 'rewarded' or compensated, and thus, from a social point of view, regulated directly by value in this case is the labour or effort of the skilled labourer who undergoes education or training. This aspect was certainly recognised by Marx, in the unpublished Resultate, as a factor in explaining the variability of wages, but his comment on it was limited to the incentive effect on the worker, encouraging them to develop their labour-power.¹⁵

The most puzzling aspect is Hilferding's conception of the transmission of value-creating power from educator to skilled laborer. It is evidently an attempt to give direct meaning to Marx's formulation of skilled labour as simple, average or unskilled labour multiplied. To help make the notion intelligible Hilferding offers a metaphor of an accumulator, a device which can deliver greater power to drive a machine through accumulating the charges of a series of smaller storage batteries, which themselves could not.¹⁶ We may consider whether there is any warrant for such a view by breaking it down into two aspects: the qualitative aspect of the transmission of a higher value-generating capacity deriving from formative labour embodied in skilled labour and their quantitative correspondence.

¹⁵K. Marx, 'Resultate', in Capital Vol. 1, p. 1032.

¹⁶R. Hilferding, op. cit., p. 146.

In concrete use-value terms, it is not unreasonable to think of the labour of education as enhancing the creative powers of the labourer. Hilferding takes this a step further by suggesting the effect of the educator virtually residing within the skilled labourer, invisibly guiding the latter's hand as it were, and so continuously supplying the differential element of skill to their labour. As a virtual connection, of course, it is only a mode of analysing the enhanced effect on the skilled labourer's expenditure of labour.

An anomaly is pointed out by J. Morris and H. Lewin on the quantitative side of Hilferding's conception.¹⁷ They find an inconsistency between Hilferding's ingenious proposition and Marx's concept of surplus value. For surplus value to exist, "it must take less than three hours of simple labour to produce the power to work for one hour for a capitalist in a skilled occupation and thereby generate an actual skilled labour hour which will count, economically, as three simple labour hours."¹⁸ The problem can be seen in this way: When Hilferding explains the value of the skilled labour-power (reflected in a wage differential) as the valorisation of the educator's hours of teaching labour, then every hour the skilled labourer works earns in the form of wages the full value of that hour of training, and no possibility of surplus-value remains, other than that based on the skilled labourer's inherent labour-power prior to training, which is paid for at the same rate as any other unskilled labour. Hilferding appears to have overlooked the point that labour cannot generate more

¹⁷J. Morris and H. Lewin, 'The Skilled Labor Problem', Science and Society, Vol. 37 No. 4 (Winter 1973-74): 454-72.

¹⁸Ibid., pp. 457-8.

than the value represented in the wage differential when the differential fully valorises that labour. J. Morris and H. Lewin suggest an amendment whereby "if it takes n hours of simple labour to produce the power to labour one hour in a skilled occupation, we could take the position that one hour of actualized skilled labour is economically equal to more than n hours of actualized simple labour."¹⁹

Unfortunately, such a move would destroy Hilferding's whole project insofar as he was trying to provide a (non-circular) derivation of the skilled labour's higher value-creating capacity. Their amendment would leave intact only Hilferding's derivation of the higher value of skilled labour-power.

Subsequent Marxists, such as I. I. Rubin (1928) and R. Rosdolsky (1968), have upheld Hilferding's criticism of Böhm-Bawerk, providing other supporting arguments, and a number of attempts have been made to implement Hilferding's approach to the reduction question. We may define the conceptual nucleus of his proposal as the treatment of skilled labour-power as a product of training, involving direct and indirect labour input, which determines its value as a commodity and simultaneously its contribution (in value terms) to production. Four formalisations of the problem^{were} published in the 1970s, adopting the approach initiated by Marx and expanded by Hilferding. These include the models of A. Bródy (1970), M. Morishima (1973), B. Rowthorn (1974 and 1979) and A. Roncaglia (1974). Some significant aspects of the problem become evident only with the full formulation of the reduction relations, consequently it is worthwhile examining some of these as an extension of our discussion of Hilferding's solution.

¹⁹Ibid., p. 458.

The common strategy of these models is the refutation of Böhm-Bawerk's charge of 'circularity' by demonstrating that a multiplicity of labour categories (generalising now from skilled labour to 'heterogeneous labour') can be directly reduced, one to another, along lines indicated by Marx, without reference to differences in the wage or other exchange-value categories.

The Formalisation of Hilferding's Solution

B. Rowthorn (1974; revised, 1979) conceptualises his formalisation of the skilled labour problem as a 'socially necessary labour time' approach, in contrast to the 'cost of reproduction' approach found in the German literature, of which he presents a version for comparison in the Appendix to his paper.²⁰ His approach is by intention a formalisation based directly on Hilferding's solution. The performance of skilled labour is conceived as an enhancement of the productive effect of unskilled labour by the labour embodied in the formation of the skill difference. The formative labour includes, besides the skilled labourer's own training time, not only the labour of the educators who do the training, but also the labour of such workers as produce the means of education used up. Insofar as these labours are skilled, they may themselves be decomposed, backwards in time, to unskilled and skilled labour until all the labour involved in the production of the skill concerned is resolved into the stream of unskilled labour which produced it. All labour which is counted in this

²⁰B. Rowthorn, 'Skilled Labour in the Marxist System', Bulletin of the Conference of Socialist Economists, No. 8 (Spring 1974), pp. 25-45 and the revised version (1979) in B. Rowthorn, Capitalism, Conflict and Inflation (London: Lawrence and Wishart, 1980).

process is socially necessary labour in accordance with Marx's definition of the latter.

The purpose of creating a fully formalised version of Hilferding's solution is to provide the explicit demonstration of the possibility of deriving the reduction coefficients from the postulated elements involved in the production of skilled labour-power. The application of P. Sraffa's linear algebraic method to the formalisation of Marx's theory of value has been explained ~~many~~ times in the literature, hence we will forego the mathematical derivation, with the attendant discussion of the relevant formal conditions, restrictions and limitations of the formalisation per se. This can be found in easily accessible places, such as I. Steedman (1977), M. Morishima (1973), etc.²¹ Our aim is to discuss the content of what is represented, with particular interest in how their findings impinge on the concept of the value of labour-power. Unavoidably, a certain minimum of the mathematical language does need to be reproduced in the discussion, if only for the sake of standardising notation across the references used. We draw on a portion of Rowthorn's derivation to provide the basic context of the discussion.

B. Rowthorn's treatment of skilled labour is developed from the standard (labour embodied) value equations for n commodities. The formulas are presented here in algebraic form (Eq. 1) for the value of the j^{th} commodity and in matrix notation form for the value of all n commodities (Eq. 1'). In Eq. (1), the value of the j^{th} commodity l_j^* is

²¹A. Bródy, Proportions, Prices and Planning: A Mathematical Restatement of the Labor Theory of Value (Amsterdam: North-Holland Publishing Co., 1970); M. Morishima, Marx's Economics: A Dual Theory of Value and Growth (London: Cambridge University Press, 1973) I. Steedman, Marx After Sraffa (London: New Left Books, 1977).

represented as the sum of the labour directly embodied, l_j , in its production and all the labours indirectly involved through the production of the means of production, with all n labours treated as a homogeneous entity.

$$l_j^* = \sum_i l_i^* a_{ij} + l_j \quad \text{for } j=1, \dots, n \quad (1)$$

and in matrix notation:

$$l^* = l^* A + l \quad (1')$$

A Mathematical Key

A = the $n \times n$ matrix of input/output coefficients a_{ij} representing the units of means of production i used to produce commodity j of the output vector x

b = an n vector of the subsistence commodities per unit of labour time

k^* = a m vector of skilled labour reduction coefficients, k_r^* , which convert the r types of skilled labour to simple, unskilled labour equivalents

l = an n vector of the quantities of labour in which the element l_j is the unskilled labour directly incorporated in the production of one unit of the j^{th} commodity

l^* = an n vector of values whose elements are quantities of unskilled labour-time equivalents and in which l_j^* is the value of the j^{th} commodity

p = an n vector of prices (of production) p_j of commodities j , which are actually transformed values in the context of the transformation problem with a normalisation to the equality of total 'price' and total value

r = the average rate of profit

w = the wage rate (per unit of labour-time), subject to different interpretations, depending on the context; w may be an m vector with w_r representing the r^{th} wage for skilled labour and w_0 , the base reference wage for average unskilled labour; or w may be a n vector for n different types of labour represented in l

\mathbf{x} = the n vector of gross commodity output using $A\mathbf{x}$ and \mathbf{l} as inputs

\mathbf{y} = the n vector of net commodity output, whose relation to \mathbf{x} is given by $\mathbf{y} = (\mathbf{I} - A)\mathbf{x}$

Other special symbols will be explained as they are used.

Rowthorn (1974) incorporates into the standard value equation an additional complex term to represent the contribution of skilled labour to the value of the commodity (Eqs. 2 and 2'). For any j^{th} commodity, there are as many as m different types of skilled labour (z_{rj} for the r^{th} type and Z for all m) involved in its production, whose value contribution is reduced through the coefficients, k_r^* to equivalent simple, unskilled labour quantities.

$$l_j^* = \sum_i l_i^* a_{ij} + l_j + \sum_r k_r^* z_{rj} \quad \text{for } j=1, \dots, n \quad (2)$$

and in matrix notation:

$$\mathbf{l}^* = \mathbf{l}^* A + \mathbf{l} + \mathbf{k}^* Z \quad (2')$$

The reduction coefficients (k_s^*), one for each type of skilled labour, are the key to providing a formal expression of Hilferding's approach to the skilled labour problem, which aimed to explicate how the performance of one hour or other unit of skilled labour creates more value than an equal amount of simple unskilled labour. The difference is derived in the manner of Hilferding from the labour which previously entered into the formation of the skill embodied in the skilled labourer. Rowthorn's scheme, however, is somewhat more comprehensive than Hilferding's conception as we see in Eqs. (3) and (3'). Each unit of skilled labour is presented as creating a value equivalent to its own unit of performed labour, counted as simple

unskilled labour (hence = 1), plus the constituent labours which entered into the formation the skill, comprised of the direct input of k_s units of unskilled educational labour, plus t_s units of the skilled labourer's own training time, plus the value of the educational commodities (the g_{is} in G) employed, plus the input of skilled educational labour (h_{rs} in H) which is itself recursively resolved into an unskilled labour equivalent through their reduction coefficients (k_r^* in k^*):

$$k_s^* = 1 + k_s + t_s + \sum_i l_i^* g_{is} + \sum_r k_r^* h_{rs} \quad \text{for } s=1,\dots,r \quad (3)$$

and in matrix notation:

$$k^* = (u + k + t) + (l^*, k^*) \begin{bmatrix} G \\ H \end{bmatrix} \quad (3')$$

where the vector $u = (1, 1, \dots, 1)$.

Because Rowthorn's scheme includes various produced commodities (e.g., books, school buildings) as inputs to the formation of skilled labour, a combined solution for commodity values and reductions coefficients is required. Equation (2') for the values of the produced commodities and Eq. (3') for the skilled labour reduction coefficients can be combined into a single large simultaneous equation set (Eq. 4).

$$(l^*, k^*) = (1, u+k+t) + (l^*, k^*) \begin{bmatrix} AG \\ ZH \end{bmatrix} \quad (4)$$

Equation (4) may be solved simultaneously for the values l^* and coefficients k^* , provided that the combined large matrix meets the usual conditions for invertibility:

$$(1^*, k^*) = (1, u+k+t) + \left[I - \begin{bmatrix} AG \\ ZH \end{bmatrix} \right]^{-1} \quad (5)$$

As Rowthorn (1974) and Roncaglia (1974) point out: If, in Hilferding's type of solution, skilled labour-power is represented as the product of educational labour alone, without the use of commodity means of education, then the reduction coefficients can be resolved separately from the value equations for commodities.²²

Rowthorn (1974) contrasts his approach to an alternative he designates the 'cost of reproduction' approach. This is the approach employed in the analysis of the education sector by some of the German writers and can be found in a collection edited by E. Altvater and F. Huisken, Materialien zur Politischen Oekonomie des Ausbildungssektors (Erlangen, 1971). Rowthorn summarizes and compares this alternative in the appendix to his paper.

The 'cost of reproduction' approach differs by its use of a cost concept, which consists of the direct cost to the individual capital in hiring skilled labour and the indirect costs in the educational sector incurred by capital as a whole for the production of skilled labour-power. The value of skilled labour-power is defined as this total cost, which is a peculiar extension of Marx's concept of the value of labour-power discussed in Part I. The constituent elements of the cost of reproduction of skilled labour are (1) the subsistence paid to the worker for his labour, including the time spent in training, both of which are counted as unskilled labour-time, (2) the costs of reproduction of the worker's educators, who perform skilled and

²²B. Rowthorn, *ibid.*, p. 28 and A. Roncaglia, "The Reduction of Complex Labour to Simple Labour," Bulletin of the Conference of Socialist Economists, No. 9 (Autumn 1974), p. 7.

unskilled labour and are paid at the same uniform rate, and (3) the commodities used up as means of production in education.

The construction is quite hypothetical in the sense that the aim of deriving a set of reduction coefficients for skilled labour independently of wage differences is only realisable with the assumption of a common wage rate for all workers, or as Rowthorn puts it, "all workers enjoy the same standard of living".²³ All three elements of the cost of reproduction of skilled labour are represented in value terms. The approach is formally represented as in Eq. (6).

$$v_s = v_o(1+t_s) + (v_o k_s + \sum_r v_r h_{rs}) + \sum_i l_i^* g_{is} \quad (6)$$

for
s=1,...,m

and in matrix notation:

$$v = v_o(u+k+t) + l^* G + vH \quad (6')$$

The v terms represent reproduction costs of labour-power in value terms. This includes v_o for unskilled labour, which also equals the uniform rate of subsistence paid for each unit of unskilled labour; the other terms are the same as Rowthorn employs, with t_s representing time spent in training by the skilled labourer of type s , k_s and h_{rs} for the unskilled and skilled labour of the educators, and the final term for the value of means of education employed.

To derive the reduction coefficients (k_s^*), which define the value created by each type of labour-power, the assumption is made that value created is proportional to the cost of reproduction; that is to say, Marx's assumption of a uniform rate of exploitation (e) is applied to skilled labour.

²³Ibid., p. 41.

$$k_s^* = (1+e)v_s \quad (7)$$

and in matrix notation:

$$k^* = (1+e)v \quad (7')$$

With an hour of unskilled labour creating unit value by definition, the e term can be given the interpretation of the average 'rate of surplus labour'.

$$l = (1+e)v_o \quad (8)$$

By rearrangement of terms, this gives:

$$e = \frac{l-v_o}{v_o} = \frac{\text{unpaid labour}}{\text{paid labour}} \quad (9)$$

By drawing on Eqs. (6'), (7') and (8) to resolve the reduction coefficients into their constituent elements, Rowthorn is able to compare the coefficients derived from the Hilferding approach.

$$\begin{aligned} k^* &= (1+e)v \\ &= (1+e)v_o(u+k+t) + (1+e)l^*G + (1+e)vH \\ &= (u+k+t) + l^*(1+e)G + k^*H \end{aligned} \quad (10)$$

As before the coefficients cannot be determined until the values of commodities (l^*) are known, but both can be determined together in one large simultaneous equation system:

$$(l^*, k^*) = (l, u+k+t) + (l^*, k^*) \begin{bmatrix} A & (1+e)G \\ B & H \end{bmatrix} \quad (11)$$

which can be rearranged to move the value and reduction coefficients to the left side:

$$(1^*, k^*) = (1, u+k+t) + \left[I - \begin{bmatrix} A & (1+e)G \\ B & H \end{bmatrix} \right]^{-1} \quad (12)$$

In terms of Rowthorn's primary concern with Böhm-Bawerk's charge of circularity, his 'socially necessary labour' approach, modelled on Hilferding, is superior to the 'cost of reproduction' approach. While examination of the two solutions reveals their only difference to be the extra $(1+e)$ term in Eq. (12) of the 'cost of reproduction' approach, its effect - assuming the inclusion of means of education (G) in the analysis - is the dependence of the reduction coefficients on the rate of surplus value (e). This entails their dependence on the level of the subsistence wage (v_0); that is to say, the reduction coefficients depend on the division of the net product between capital and labour. Consequently, while the 'cost of production' approach eliminates circularity with respect to wage differences, there remains a logical dependence of the derivation on the general wage level as expressed by e or v_0 .

Rowthorn declares this to be "contrary to Marx's general intention, which was to define the value of commodities quite independently of the average rate of surplus labour (e), or the average level of workers' subsistence (v_0)."²⁴ Is this really so? The argument would be more damaging if the dependency in question existed between a value term and an exchange-value term (i.e., prices or money wages), taken as an explanandum, but here the average level of workers' subsistence is expressed in value terms. In any case, the 'circularity' problem is not methodologically vicious, as A. Bródy has noted: Definitional 'circularity' in a system of mutually determining

²⁴Ibid., p. 43.

terms (i.e., in a self-contained, closed system) is perfectly respectable and is not subject to the Classical logical objection to circular argumentation.²⁵

What is of interest to us here, however, is that two approaches, more or less equivalent in their verbal formulation (i.e., Marx would have regarded them to be) can be discovered to harbor genuine differences when explicated formally. As Rowthorn points out, the difference between the two approaches is consequent to including commodity means of educational labour as part of the process of the production of skilled labour, which I have not seen any purely verbal account consider. Without this factor, the results in the two approaches are equivalent; that is to say, values l^* and reduction coefficients for skilled labour k^* are identical. When educational means of production (G) are included, not only are the reduction coefficients different, but the values of commodities generally (l^*) are also affected.

Merely reproducing Hilferding's approach does not, of course, resolve the problem pointed out by J. Morris and H. Lewin (1973-74). This peculiarity, which emerged on interpretative grounds, can be explicated quite transparently with the aid of Rowthorn's formalisation, once the wage term is included.

Wages are incorporated into the standard price of production equations in the following way:

$$p_j = (1+r) \left(\sum_i p_i a_{ij} + w_0 l_j + \sum_i w_r b_{rj} \right) \quad j=1, \dots, n \quad (13)$$

and in matrix notation:

²⁵A. Bródy, *ibid.*, p. 85.

$$p = (1+r)(pA + w_0 l + wB) \quad (13')$$

in which p_j is the price of commodity j and r the general rate of profit; the w_r are the wage rates of the r categories of skilled labour-power which are assumed to be the uniform within each category; w_0 is the wage rate for average, unskilled labour and is also assumed to be uniform. Using the equation set as the general form for the determination of wage rates, solvable for prices p 's and wages w 's given r , Rowthorn examines the special conditions under which the wages of each category of skilled labour are proportional to their unskilled labour equivalents (the reduction coefficients). He singles out this case because it corresponds to Marx's assumption of a uniform rate of exploitation in the derivation of prices of production; without the assumption, different prices of production will result.

Solving for the price vector, p in Eq. (14), with wage rates expressed in relative form (w_r/w_0) and comparing the result with the prices of production p' in Eq. (15), transformed directly from values (with the skilled labour contribution incorporated in their reduced form as unskilled labour equivalents in l^*), we find:

$$p = w_0(1+r)[1 + (w/w_0)Z][I - (1+r)A]^{-1} \quad (14)$$

$$p' = w_0(1+r)[l^*(I - [1+r]A)^{-1}] \quad (15)$$

Since $l^* = l + k^*Z$, the difference between the two sets of prices may be expressed as follows:

$$(p - p') = w_0(1+r)[w/w_0 - k^*]Z[I - (1+r)A]^{-1} \quad (16)$$

It is evident that the two sets of prices of production are the same if $w = w_0 k^*$; that is to say, when the wage of each category of skilled labour (w_r) is exactly proportional to their unskilled labour equivalent (k_r^*), which would come about if they were paid at the same rate (w_0) as unskilled labour. Pushing this a bit further in the same vein and examining the composition of the skilled wage rate in terms of its determinants, Rowthorn finds that the required proportionality will not generally exist so long as educational commodity inputs (G) are part of the formation of skilled labour-power. The decomposition of the skilled wage rate takes the following form:

$$w_r = w_0(1+t_r) + w_0 k_r + \sum_s w_s h_{sr} + \sum_i p_i g_{ir} \quad (17)$$

and in matrix notation:

$$w = w_0(u+t+k) + wH + pG \quad (17')$$

The demonstration of the point is obtained through a somewhat complicated maneuver involving rearrangement of terms and taking into account Eq. (3'), which gives the following result:

$$(w - w_0 k^*) = (p - w_0 l^*)G(I-H)^{-1} \quad (18)$$

The two wage terms will not generally be identical (the difference on the left equal to zero) unless G is zero. (Alternatively, the term $(p - w_0 l^*)$ is zero if the rate of profit is zero.) Rowthorn considers the conditions required for the proportionality of the skilled wage to its unskilled labour equivalent as too restrictive for this and another reason which does not seem germane.²⁶

²⁶Ibid., pp. 37-8.

We can now have a look at what happens to the problem raised by J. Morris and H. Lewin in Rowthorn's scheme. From Eq. (3) or (3') we see that the value-creating power of an hour of skilled labour is enhanced over that of unskilled labour by an increment equal to all the socially necessary labour time devoted to the formation of the skill in question. To determine the surplus value appropriated from this hour of skilled labour we subtract the value paid out by capital to employ the skilled labourer. If we assume the skilled wage (w_r) follows the same general form used in Eq. (17) or (17'), so that one unit of unskilled labour equivalent is paid at the same uniform rate (w_0) as average, unskilled labour, then with the aid of Eqs. (3) or (3') and (17) or (17'), we determine the difference between value created and the wage paid for the r th skilled labourer as:

$$(k_r^* - w_r) = (1-w_0)(1+t_r) + (1-w_0)k_r + \sum_s (k_s^* - w_s)h_{sr} + \sum_i (l_i^* - p_i)g_{ir} \quad (19)$$

and in matrix notation:

$$(k^* - w) = (1-w_0)(u+t+k) + (k^* - w)H + (l^* - p)G \quad (19')$$

The first term gives us our answer. It gives surplus value appropriated from an hour of unskilled labour equivalent as $(1-w_0)$, when paid at the rate of w_0 . Hence, for skilled labour, surplus value arises not only from the hour of current labour performed (reckoned as equivalent to one hour of unskilled labour), but also on the the labour-time embodied in the skill at the same rate. An hour spent in training by the worker in question or an hour's worth of instruction by an educator is depicted as transferring to the skilled labourer the capacity to create the equivalent as value in the commodity while

being paid less than this. This resolves the surplus value question along slightly different lines than J. Morris and H. Lewin suggested. Instead of positing skilled labour as unaccountably generating more value with its skill than the socially necessary labour required to create it, Rowthorn's formulation under-valorises skilled labour-power, reckoned in unskilled labour equivalents. This aspect of his formula is not discussed by him. We can point out, however, that since the wage differential for skilled labour-power does not correspond to the socially necessary labour-time embodied in it from training and instruction, but to the rate at which these prior labours were paid, contrary to his explicit aim, Rowthorn has inadvertently produced a cost of production concept of the value of labour-power. Insofar as the form of either 'cost of production' solution posits an undervaluing of labour-power as the basis of surplus value, it abrogates the value of labour-power concept.

The whole question of surplus value follows a neo-Ricardian tack in Rowthorn's own analysis.²⁷ He differentiates between surplus value as a specifically capitalist category and surplus labour as a general category, not specific to any form of production. On this basis, the labour performed in the educational sector in excess of the wage paid is a surplus labour, which is embodied in an unacknowledged form in the skill of the skilled labourer. The skilled labourer transfers this embodied labour time into the product and, so long as the wage differential of the skilled labourer equals only the cost of the production of the skill, an excess appears which takes the form of surplus value embodied in the product. If the wage in the educational

²⁷ Ibid., pp. 29-36.

sector is regarded as paid by capital as a whole, e.g. through taxes, then capital as a whole has a similar relationship to the educational sector as individual capitals have to their workers, with the difference that unpaid surplus labour in this case is a hidden sectoral transfer.

As for equality of rates of exploitation or surplus value, Rowthorn's schema allows either possibility. Their inequality is reckoned to be the more general case; they are equal only in the restricted situation of wages proportional to the value created by skilled labour, which assumes no commodity inputs to the formation of skill (cf. Eq. 18) and each unit of unskilled labour equivalent paid at a uniform rate.

$$\begin{aligned}
 e_r &= \frac{k_r^* - w_r}{w_r} & (20) \\
 &= \frac{k_r^* - w_o k_r^*}{w_o k_r^*}, \text{ from Eq. (18)} \\
 &= \frac{1 - w_o}{w_o}
 \end{aligned}$$

Although the proportionality rule, associated with equal rates of exploitation, won't generally hold without these restrictive assumptions, only M. Morishima (1973) seems to regard this as very serious; indeed, he considers it sufficient grounds for rejecting Marx's labour theory of value because it "contradicts Marx's two-class view of the capitalist economy."²⁸ There is hardly any merit in this argument. First, differences in rates of exploitation could be viewed merely as an

²⁸M. Morishima, Marx's Economics: A Dual Theory of Value and Growth (London: Cambridge University Press, 1973), p. 193.

additional dimension of complexity within one class category, the workers, rather than a multiplication of the number of classes. Second, equalisation of rates of exploitation among different workers was only regarded as a tendency by Marx, qualified by other factors or "frictions" in the market; so that even if it is posited in a strong form as a law, it would not be intended as the sole determinant in operation. Third, insofar as the law functions as a simplifying assumption in the transformation problem, it was not a necessary assumption. The transformation of values to prices of production through the equalisation of rate of profit can be determined with varying rates of surplus value for different categories of labour, as B. Rowthorn (1974) indicates and A. Roncaglia (1974) explicitly affirms.²⁹ In effect, Rowthorn's schema shows that the Sraffian system for determining prices of production for a given rate of profit can incorporate the necessary additional equations for differences in wage rates.

B. Rowthorn's later paper (1979) corrects an anomaly in the handling of the wage term in Rowthorn's earlier version (1974). In the earlier version, the labour of the educational sector embodied in the skilled labourer is paid for twice over by capital; firstly, in the wage differential of the skilled worker and secondly, in the wages paid in the educational sector, indirectly paid through the state's tax levy on capital. This is changed in the later version by dropping the wage-determination aspect of his schema and reinterpreting the wage term as the overall social cost to capital, comprising the wage paid directly for skilled labour (including the period of training) and the indirect

²⁹A. Roncaglia, *ibid.*, p. 11.

payment of wages in the educational sector. The time frame has also been shifted from the conventional wage rate to the social cost of skilled labour over its lifetime.

A different sort of problem has evidently been encountered here. We have already discussed the paradox in Hilferding's solution when attempting to simultaneously determine the skilled labour's differential value-creating capacity and its higher value of labour-power. Analytically, there is no room for surplus value if the labour entering into the formation of skilled labour-power is fully valorised. A further problem of double counting now appears between the wage differential paid to the skilled labourer and the wage paid in the educational sector for the formation of the skill. This is the reason for our interest in Rowthorn's move to eliminate this oversight. It reveals a curious dilemma in the formalisation of the theory of value.

Anomalies, indeterminacies, and even inconsistencies, which would appear to be inherent possibilities in actual social practice, take on the complexion of error in a formal argument. In the case of skilled labour, it is transparently obvious that what capital pays the skilled labourer cannot in the same stroke be a payment to the labour of a third party, who contributes to the production of the skill. The problem is similar to the one encountered in the analysis of domestic labour. If the system of value were a rational system of accounting, then double-counting and other similar gaps would normally be disqualifying to the theory; but this is not necessarily a problem when the aim is describe actual social practices. The paradox in Hilferding's solution, on the other hand, distorts the theory it aims to support. The extension of the cost of production approach to skilled labour can therefore be criticised for an oversight with respect to the form of the value relation.

Skilled Labour versus Heterogenous Labour

A very different approach to the formalisation of value theory without the reduction of different types of labour to a common measure is provided by S. Bowles and H. Gintis (1977) of the American radical political economy school associated with the Union for Radical Political Economy (URPE).³⁰ They are, perhaps, best known for their work on the relation of education to inequality and also for their work on economic discrimination in the form of labour market segmentation. They contend that the skilled labour debate has been misdirected. Contrary to the common assumption that homogeneity of labour is a major tendency of capitalist society, with the sole theoretically important exception of skilled labour, they argue for the importance for capital of persistent divisions within the working class. Workers are continually divided in their view through a process of categorisation within labour markets according to race, sex, nationality, ethnicity, education and position in the hierarchy of production. Observed differences between such groups of workers in rates of pay, working conditions and access to particular jobs cannot be accounted for by differences in skill. Indeed, Bowles and Gintis cite empirical studies which show that skill is a weak determinant of observed differences in occupational position, job performance and income.³¹ They propose, therefore, to abandon the traditional

³⁰S. Bowles and H. Gintis, 'The Marxian Theory of Value and Heterogeneous Labour: A Critique and Reformulation', Cambridge Journal of Economics, Vol. 1 No. 2 (March 1977): 173-92.

³¹*Ibid.*, p. 180.

conception of the skilled labour problem. They substitute in its place the phenomenon of labour segmentation as the normal form of labour heterogeneity with the aim of formally incorporating it into the Marxist theory of value.

Subject to some controversy, S. Bowles and H. Gintis demonstrate the possibility of preserving the formal structure of value theory, using the mathematical methods derived from P. Sraffa, while retaining the heterogeneity of labour (i.e., without the reduction to homogeneous labour). Formally, their approach consists in treating the labour variable as a vector of multiple types of labour. This vector provides the basis and form for expressing the various values (commodity values, surplus value, rate of profit, etc.) in the same vector form, without reduction to homogeneous labour. The result is some complication for the substantive interpretation of value theory, e.g., the fact that values are not expressed as a single quantity, but rather as a vector of quantities, each corresponding to the direct and indirect labour, separated according to type, involved in the production of a commodity. The key to their exposition, then, is to have clearly fixed in mind that labour remains from beginning to end a multidimensional term and no reduction to a single homogeneous quantity is introduced.

The conceptual innovation in this procedure, which directly confounds Böhm-Bawerk's critique, is the demonstration of the non-necessity of any reduction criterion in Marx's theory of value. Certain doubts are raised by M. Morishima (1977), but they seem to demonstrate their point successfully. We only treat here a segment of their formal schema, translated into notation already introduced, to examine their handling of differentiation in the types of labour-power.

The equations representing the process of production, which are the heart of the Sraffian method, employ both a matrix of input/output coefficients for means of production (A) and a matrix for the variety of labour inputs (L), have the following form: \mathbf{x} designates the gross output of each of the n types of commodities (x_1, \dots, x_n), of which a portion is the surplus product represented by the vector \mathbf{f} . Unlike the formalisations of B. Rowthorn and A. Roncaglia already presented, the role of labour is formally represented by the commodities which constitute their reproduction requirement. A different array of commodities represents each type of labour in the matrix B

$$x_j = \sum_i a_{ij} x_i + \sum_i \sum_r \sum_h b_{hr} l_{ri} x_i + f_j \quad (21)$$

and in matrix form:

$$\mathbf{x} = (\mathbf{A} + \mathbf{BL})\mathbf{x} + \mathbf{f} \quad \text{for } \mathbf{x}, \mathbf{f} \geq 0 \quad (21')$$

The gross output of each commodity (x_j) requires the input of a string of up to n -number of other commodity means of production, which are employed (or consumed) by a string of up to m -types of direct labour to yield a surplus (f_j) of that commodity.

The value of commodities corresponding to these production relations are not represented by a single quantity; rather the direct and indirect contribution of each type of labour is kept distinct in the form of a vector. In effect, the notational form of the matrix algebra allows a non-aggregative approach to the problem. Certain lemmas and theorems in connection with the model are proved in the mathematical appendix, which demonstrate that the usual results or characteristics of the theory with homogeneous labour hold for heterogeneous labour, with some modification in the interpretation. By way of an extension to the notational system heretofore, we let l_j^*

represent the value of commodity j in the form of a vector of m -types of labour and L^* , the matrix version for the n commodities. Then,

$$l_j^* = (\sum_i l_{li}^* a_{ij}, \dots, \sum_i l_{mi}^* a_{ij}) + (l_{lj}, \dots, l_{mj}) \quad (22)$$

for $j=1, \dots, n$

and in matrix notation:

$$L^* = L^* A + L \quad (22')$$

The value of labour-power is similarly represented, on the basis of their consumption bundles, as a vector (v_s) and corresponding matrix (V):

$$v_s = (\sum_i l_{li}^* b_{is}, \dots, \sum_i l_{mi}^* b_{is}) \quad \text{for } j=1, \dots, n \quad (23)$$

and in matrix notation:

$$V = L^* B \quad (23')$$

The limited treatment of the reproduction of labour-power in Bowles and Gintis' model, restricting the differences to the elements and levels of the consumption requirement (B), obviously downplays the aspect of (skill) differences as a social product in some form of labour process. This is congruent with their orientation to the phenomenon of segmentation, which throws the emphasis towards discriminatory treatment, as against inherent or acquired differences. Their schema is directed towards working out the implications in value theory of a form of labour heterogeneity for which prima facie there is no reduction process to consider.

Their non-aggregative approach entails some additional complexity for the formal specification and interpretation of value relations. One already indicated is that of having to represent the

value of labour-power as a vector (\mathbf{v}_s) for each type of labour-power. For each type of labour-power s , this vector comprises the separately represented labour-time of each type of labour-power incorporated in its wage-basket (\mathbf{b}_s).

The concepts of necessary and surplus labour time and the rate of exploitation are also specifiable only in vector form. For a given level of output over the range of commodities \mathbf{x}_0 , the total direct labour-times of each type of labour are determinable as $\mathbf{L}\mathbf{x}_0$ and the value (direct and indirect labour-times) as $\mathbf{L}^*\mathbf{x}_0$. The constant capital used up, in value terms, is $\mathbf{k}(\mathbf{x}_0) = \mathbf{L}^*\mathbf{A}\mathbf{x}_0$ and the variable capital is $\mathbf{v}(\mathbf{x}_0) = \mathbf{L}^*\mathbf{B}\mathbf{L}\mathbf{x}_0$, which is equal to the value of labour-power ($\mathbf{V}\mathbf{L}\mathbf{x}_0$). The total necessary labour-time $\mathbf{n}(\mathbf{x}_0)$ and surplus labour-time $\mathbf{s}(\mathbf{x}_0)$ may be expressed in the usual way, but in vector form:

$$\mathbf{n}(\mathbf{x}_0) = \mathbf{k}(\mathbf{x}_0) + \mathbf{v}(\mathbf{x}_0) = \mathbf{L}^*(\mathbf{A} + \mathbf{B}\mathbf{L})\mathbf{x}_0 \quad (24)$$

and:

$$\mathbf{s}(\mathbf{x}_0) = \mathbf{l}(\mathbf{x}_0) - \mathbf{n}(\mathbf{x}_0) = (\mathbf{I} - \mathbf{L}^*\mathbf{B})\mathbf{L}\mathbf{x}_0 \quad (25)$$

A rate of exploitation $\mathbf{e}(\mathbf{x}_0)$ may be defined on the basis of $\mathbf{s}(\mathbf{x}_0)$ and $\mathbf{v}(\mathbf{x}_0)$ for each category of labour, subject to a special interpretation. The definition employed is the ratio of the total unpaid labour-time $(\mathbf{L} - \mathbf{V}\mathbf{L})\mathbf{x}_0$ to the paid labour-time $\mathbf{V}\mathbf{L}\mathbf{x}_0$, adopting a special convention in which the ratio of the vectors is read as a term-by-term ratio of their elements.

$$\mathbf{e}(\mathbf{x}_0) = \frac{(\mathbf{I} - \mathbf{V})\mathbf{L}\mathbf{x}_0}{\mathbf{V}\mathbf{L}\mathbf{x}_0} \quad (26)$$

As for the special interpretation, Bowles and Gintis (1977) point out that the resultant rates of exploitation cannot be thought of as each labourer's 'own rate' of exploitation (according to type) because the paid portion of their labour (VLx_0) does not correspond, in fact, to an equivalent in their own consumption, but rather to a portion of the consumption of all the m -types of labourers. Variable capital is, thus, not actually an expression of the value of their own labour-power (which ^{is} defined via its consumption bundle). As Bowles and Gintis suggest, the rate of exploitation is defined at a collective level. To clarify this point, the rate of exploitation $e_r(x_0)$ is worked out for the r^{th} type of labourer in Eq. 27 as:

$$e_r(x_0) = \frac{\sum_i l_{ri} x_i - \sum_j \sum_s \sum_i l_{rj}^* (b_{js} l_{si} x_i)}{\sum_j \sum_s \sum_i l_{rj}^* (b_{js} l_{si} x_i)} \quad (27)$$

for:
 $i, j = 1, \dots, n$
 $r, s = 1, \dots, m$

Such a complex expression for the rate of exploitation results, of course, directly from Bowles and Gintis' non-aggregative approach to the heterogeneity of labour. If reduction ratios were to be introduced somehow, the rate of exploitation would collapse into its simpler, familiar form as the ratio of 'own' unpaid to paid labour-time. However, no grounds for a set of reduction ratios are afforded in their analysis. In their discussion, Bowles and Gintis import a 'Lockean' criterion in which an hour of labour of one worker is treated as the equal of an hour of any other worker. The system of ethically equitable reduction ratios is intended merely to show the relation between their analysis and the results which would have been obtained under the assumption of homogeneous labour. In the latter case, the rate of exploitation has the conventional form. Bowles and Gintis

(1977) refer to this as the ' r^{th} -rate of exploitation in common labor hours',³² which we notate here as $\bar{e}_r(x_0)$. For each element of the r^{th} labourer's real wage basket (b_{jr}), it is now possible to sum the labour-time contributions of all m -types of labour as well as the values of the different commodities forming the r^{th} wage basket. We then obtain:

$$\bar{e}_r(x_0) = \frac{1 - \sum_s \sum_i l_{si}^* b_{ir}}{\sum_s \sum_i l_{si}^* b_{ir}} \quad \text{for } r=1, \dots, m \quad (28)$$

and in matrix notation:

$$\bar{e}(x_0) = \frac{I - uL^*B}{uL^*B} \quad (28')$$

where $u = (1, \dots, 1)$ for the reduction ratios between different types of labour, and $\bar{e}(x_0)$ is the vector of rates of exploitation, which expresses each category of labour-power's own ratio of unpaid to paid labour.

Bowles and Gintis' (1977) main contribution to the debate is to establish the fact that a consistent value theory does not actually require the aggregation, i.e. reduction, of different types of labour. At the same time, it is also true that their non-aggregative approach does not exclude the provision of such reduction ratios. They themselves, after establishing a system based on non-aggregated heterogeneous labour, have worked out the consequences of a set of 'Lockean' reduction ratios, which treats all labour-times as equal.

³²Ibid., p. 187.

M. Morishima (1981), in his commentary on their paper, similarly examines the effect of weighting the labour-times in accordance with their wage rates, thus reproducing the dual proportionality relation of Marx's original approach.³³ All rates of exploitation turn out to be equal in this case, whereas for Bowles and Gintis' schema, rates of exploitation - in either form, unaggregated $e(\mathbf{x}_0)$ or in 'common labour hours' $\bar{e}(\mathbf{x}_0)$ - need not be equal. They can even be negative.

Bowles and Gintis justify their approach on the grounds that the phenomenon of labour segmentation, i.e. discriminatory treatment on the basis of sex, age, race, etc., is substantively more germane than skilled labour. Not only is it the broader phenomenon, not reducible to differences in skill, but they also argue, contrary to the common Marxist thesis of a tendency towards the homogeneity of labour under capital, that capital actually exploits and perpetuates divisions within the working class, which are manifest in job market segregation and wage differences. To summarize: Labour may be differentiated according to type and the contribution of each to the production of any and all commodities represented separately. Wages, represented in their schema as baskets of commodities, need not be equal. While certain value theory concepts, such as the rate of exploitation, are given a special twist, the basic tenets of the Marxist theory of value are preserved in their analysis.

Two published criticisms of their proposal focus on its relationship to the original problem.³⁴ G. Catephores (1981),³⁵

³³M. Morishima, 'Bowles and Gintis on the Marxian Theory of Value', Cambridge Journal of Economics, Vol. 5 No. 3 (Sept 1981), p. 308.

³⁴Leaving aside a minor criticism of their formal proof by M. Morishima, op. cit., p. 306.

³⁵G. Catephores, 'On Heterogeneous Labour and the Labour Theory of Value' Cambridge Journal of Economics, Vol. 5 No. 3 (Sept 1981): 273-280.

however, seems to ruin his argument when he gets carried away with formal niceties and exaggerates the significance of the mathematically implicit reduction which he 'uncovers' in their schema without regard for their substantive significance, to which Bowles and Gintis rightly object.³⁶ Nevertheless, both G. Catephores and E. McKenna (1981),³⁷ separately, put their finger on a problem of lack of fit between their solution and the requirements of the original problem. Consequently, Bowles and Gintis' proposal leaves the issue no further advanced. A confusion (of purposes?) appears to have arisen when the terms of the problem were shifted by them from skilled labour to the heterogeneity of labour as understood from the labour segmentation point of view. Different forms of heterogeneity appear to pose different theoretical problems. In effect, Bowles and Gintis' analysis only substitutes one problem for another, leaving unresolved the question of how qualitative differences in labour-power as factors of production are to be dealt with in value theory.

The heterogeneity of labour which is discussed in the labour segmentation literature concerns differentiation in the treatment of labour, which otherwise need not be regarded as different in their productive role. To incorporate discrimination per se into value theory means differentiation in wage levels, working times, or the intensity of labour for different categories of workers, which possibly result in different rates of exploitation, but a differential value-

³⁶ S. Bowles and H. Gintis, 'Labour Heterogeneity and the Labour Theory of Value: A Reply' Cambridge Journal of Economics, Vol. 5 No. 3 (Sept 1981), p. 286.

³⁷ E. McKenna, 'A Comment on Bowles and Gintis' Marxian Theory of Value' Cambridge Journal of Economics, Vol. 5 No. 3 (Sept 1981): 281-84.

creating capacity does not arise on these grounds. 'Non-produced', i.e. non-skill, differentiations of labour-power, do not require a non-aggregative approach. The problem is, in fact, open to either sort of treatment, as John Roemer (1978) has shown specifically for the differential exploitation of labour.³⁸

The question of socially produced differences in the quality of labour-power requires some modification of Bowles and Gintis' schema. While they consider that training can be incorporated into their schema, they do no more than reproduce the approach of Hilferding(-Rowthorn) which we've already examined. The procedure is to modify the vector representation of the value of labour-power to incorporate the labour of training and education (also represented multi-dimensionally) along with the (multidimensional) labour embodied in the real wage basket. This extension of their model would cover one aspect of wage-determination, which is otherwise an exogenous datum in their model. The result is the determination of the wage level of skilled labour through its value component arising from training and the value of the means of education along the lines of the classical Hilferding(-Rowthorn) approach, but without the reduction of one labour term to another.

If Bowles and Gintis' schema is agnostic on the question of reduction ratios relative to differences in value created by different types of labour, the question of wage levels is not dealt with either in that these are taken as a datum in their analysis.³⁹ The argument

³⁸J. E. Roemer, "Differentially Exploited Labor: A Marxian Theory of Discrimination," Review of Radical Political Economics, Vol. 10 No. 2, Summer 1978: 43-53.

³⁹Elsewhere, they present arguments for rejecting the concept of the 'value of labour-power', cf. S. Bowles and H. Gintis, 'Structure and Practice in the Labor Theory of Value' Review of Radical Political Economy, Vol. 12 No. 4 (Winter 1981), pp. 8-13.

they establish is that, at least for the formal apparatus of value theory, labour may be represented as value without the homogeneity of labour. To this extent, Catephores' assessment that they have done nothing towards solving the real problem of heterogeneity, that of differences in the value-creating capacity of different types of labour-power is slightly off the mark.⁴⁰ They have established the useful result that settling the reduction question is not a crucial prerequisite for a valid (labour) theory of value, contrary to Böhm-Bawerk. Instead, the homogeneity of labour must be posited, if at all, as a substantive thesis within the theory of value and only in relation to that is it necessary to resolve the question of reduction ratios. To carry the analysis of heterogeneous labour further requires settling on some principle of reduction, whose grounds are as yet unclear.

Certain limitations are inherent to the most common form of the Sraffian formalisation of value theory, notwithstanding the argument over 'economistic' versus 'non-economistic' readings of the formulae. Like Bowles and Gintis, many Marxist economists, who employ the formal techniques, distance themselves from the 'economism' of the embodied labour interpretation of the classical labour theory of value, with regard to which they more or less accept the neo-Ricardian redundancy critique.⁴¹ They defend the Marxist theory of value on the interpretative plane, through a 'non-economistic' reading of the theory, which posits the necessity of the categories of value for the analysis of the system of capitalist production as a social process, in which the crucial issues are control over labour and class struggle

⁴⁰G. Catephores, op. cit., p. 280.

⁴¹I. Steedman, op. cit.

within the relations of production.⁴²

In contrast to the 'technicist' or 'economistic' interpretation in which the elements of the Sraffian formal system are defined as technical, i.e. physical, variables and relations - the input/output coefficients, the labour term, levels of output, etc. - from which prices and embodied labour values are derived as a dual system of valuation, coequal and independently determinable; the 'non-economistic' reading treats labour in the form of value as the essential social content of the system of commodity production. This reading is distinguished from the 'embodied labour' version through Marx's concept of 'abstract labour', which distinguishes labour as it counts towards the creation of value and surplus value under capital from labour in the ordinary, generic sense as useful, and even indirectly necessary activity.

The difference in interpretation does make a difference at certain points in the form of value theory which the Sraffian formalisation is used to represent. For example, the 'abstract labour' concept provides the theoretical ground for rejecting the notion of hidden transfers of surplus labour such as one finds in B. Rowthorn's analysis of the educational sector. In other respects, the difference seems to be merely nominal. A different interpretation is superimposed on an identical formal schema.

$$Ax + lx + k^* Z \longrightarrow x$$

$$l^* = l^* A + l + k^* Z$$

(B. Rowthorn)

⁴²Ibid., p. 1-3.

$$Ax + Lx \longrightarrow x$$

$$L^* = L^*A + L$$

(S. Bowles & H. Gintis)

An inspection of the l vector and Z matrix for unskilled and skilled labour in Rowthorn's value equation (Eq. 2 or 2') and the corresponding production process and the L matrix for all types of labour in Bowles and Gintis' schema (cf. Eqs. 22 or 22' for the value equation) reveals that the one direct labour term, expressed as l , Z and L , for skilled and unskilled or simple labour, appears in a double role: as a physical input to the production process and as the direct labour constituent of value. The same formal term is also equally interpretable as actual labour expended, an average, or as socially necessary labour. It might be noted that even that reputed pillar of neo-Ricardianism, I. Steedman (1977), employs the abstract labour interpretation for the labour term (as an equivalent to the simplifying assumption of the homogeneity of labour) and refers to the physical-technical data of the production, from which the price and value systems are derived, as "socially determined" quantities.⁴³ No wonder G. Hodgson (1981), defending I. Steedman, proclaims it "mere artistry" to counterpose to the technicist, embodied labour interpretation of the neo-Ricardian approach, an identical formal schema with an 'abstract labour' interpretation.⁴⁴

Little stands in the way of suppressing the difference in interpretation in order to compare solutions formally; one translates

⁴³I. Steedman, op. cit., p. 17.

⁴⁴G. Hodgson, 'Critique of Wright: I. Labour and Profits' in I. Steedman et al., The Value Controversy (London: New Left Books, 1981), p. 93.

easily into the other, and formal results derived under one theoretical framework have a bearing on the other, which makes comparison quite legitimate. With a little prior manipulation to cast the representation of direct labour in Rowthorn's schema into the same form as Bowles and Gintis use, we can then compare their treatments of the same object (direct labour) regardless of the difference in theoretical framework. We first move the separate unskilled labour vector l into Rowthorn's Z matrix representing skilled labour, add the corresponding unit value to the vector of reduction coefficients k^* , and direct labour in Rowthorn's schema is transformed into Bowles and Gintis' L matrix. The differences and commonalities in their analyses can then be brought out quite simply, in mutually relevant ways.

To sum up the two approaches we have looked at, Rowthorn's derivation of a set of reduction coefficients attempted to show how value expressed in terms of labour quantities could be preservedⁱⁿ the face of at least the difference between skilled and unskilled labour. If it had been successful, a method would have been demonstrated for establishing homogeneity of labour for at least one form of heterogeneity. Bowles and Gintis (1977) were found to be concerned with a different problem, labour segmentation as the dominant form of heterogeneity. They aim to demonstrate that homogeneity is not a necessary aspect of the value, whose substance is abstract labour. If, however, value does not require the commensurability of labour, the concept of abstract labour itself seems to be superfluous. That is to say, the concept of value need have no other meaning than an association between the commodity and a collection of different labours (average, socially necessary, or otherwise) involved in its production.

In the next section, we consider the claims of the 'abstract labour' approach to theory of value with respect to the heterogeneity of labour. This approach ~~aims to~~ aims to explain the significance of Marx's thesis that the commensurability of different types of labour, i.e. their reduction, is "established by a social process that goes on behind the backs of the producers." This provides the basis for a defense of Marx's theory of value against the neo-Ricardian critique, which is viewed as based in an inappropriate embodied labour conception of the theory. The argument is not conducted through the medium of the formalisation of the theory of value, which is associated with the neo-Ricardian critique, but also sometimes felt to be inherently incompatible with an abstract labour interpretation. In contrast to the Hilferding solution, revived by B. Rowthorn (1974), the solution to the problem posed by the heterogeneity of labour is sought not in an analysis of the production of qualitative differences between labour-powers, but rather in the exchange process.

The abstract labour approach:

In the 'abstract labour' approach, the form of value is considered the hallmark of the difference between Marx's theory of value and that of Ricardo, whose attempt to employ directly an embodied labour concept of value could not overcome the contradiction when combined with a cost-summation account of price.⁴⁵ The problem of heterogeneous labour in S. Himmelweit (1984) and S. Mohun (1985), two proponents of the 'abstract labour' approach, is handled in a manner directly continuous with their critique of neo-Ricardianism.

⁴⁵S. Mohun and S. Himmelweit, 'Real Abstractions and Anomalous Assumptions' in I. Steedman et al., The Value Controversy (London: New Left Books, 1981), p. 231.

The 'abstract labour' approach asserts the intimate connection between value and price in Marx's theory of value. The interdependence of value and price is held to be rooted in the necessity of an external form through which is expressed the equality of commodity-exchange. Just as the commodities combine the heterogeneity of their use-values with ^{an} equality of value in the process of exchange, expressed in the form of a quantitative equivalence in exchange-values, or units of the medium of exchange, so labour which produces the commodity is analysable into corresponding aspects: alongside their natural relation between concrete labour which produces the useful qualities of the commodity, in producing the object for exchange, the same labour in abstraction ^{from} its differences constitutes the substance or content of value in exchange. The process of abstraction, however, which the theory of value is concerned with is the real social process of exchange in which productive labour (the socially necessary labour-time) is distinguished from wasted effort post factum because, in a commodity producing society, exchange is the only testing ground of production.

On this conception of the connection between value and labour, the 'abstract labour' approach would regard the search for some intrinsic criterion of commensurability by which different types of labour may be reduced a priori to some common homogeneous standard of value from within labour itself (in effect, independently of the form of society) as misdirected effort.⁴⁶ The only form of homogeneity at issue is the commensurability imposed on different forms of labour in the process of exchange and expressed through the form of value,

⁴⁶S. Mohun, 'Abstract Labour and Its Value Form' Science and Society, Vol. 48 No. 4 (Winter 1984-85), p. 396.

whose language is exchange-value (prices in the case of monetary exchange).

No justification exists in the 'abstract labour' approach for using physical or other measures of labour-time to represent value independently of and prior to prices. The abstract labour content of commodities is by definition more than the embodied labour-time, average or otherwise, associated with the production of a commodity. The labour of production must be socially validated, which is only indicated by the fact of exchange; the extent of this social validation is indicated by the terms of exchange, i.e. the price. A common price for some range of use-values expresses equal amounts of value, whose substance is abstract labour. For a theory of value concerned with the forms and laws of exchange in the organisation of the capitalist system of production, monetary units rather than units of labour-time provide the appropriate discursive form in value theory. S. Himmelweit likens the market to "a 'translator' between units of labour time and units of money, who performs the translation differently for different groups of workers."⁴⁷

Since what is at issue is the commensurability established through the exchange process over the whole field of labour in production, the 'abstract labour' approach is concerned with a more fundamental process than is associated with the traditional skilled labour problem. This definition of the problem corresponds to R. Rosdolsky's view referred to earlier that the question of the homogeneity of labour is prior and more fundamental than the skilled labour problem and was resolved by Marx in his discussion of the

⁴⁷Ibid., p. 343.

value-form. Skilled labour per se represents a local problem in the theory of value. It is even regarded as something of a 'red herring' by S. Himmelweit (1984) in that, as with Bowles and Gintis (1977), the focus on this special case obscures the broader phenomenon of labour differentially treated in the absence of a genuine differences in productive capacity.⁴⁸

The exchange process entails commensurability and equality in exchange between different forms of labour as abstract labour, whose actual conditions of work, e.g. duration, intensity, etc., vary. Marx thought there existed a real tendency towards the homogeneity of labour under capital on the basis of the competitive struggle between capitals and the freedom of workers to change employment. The process included the displacement of skilled by unskilled labour with the introduction of machinery, the simplification of individual jobs through detail labour, as well as the equalisation of wage levels and conditions of work. Homogeneity of labour was for him a real historical tendency, not merely a simplifying assumption of his theory of value, and corresponded to the transition from manufacture proper (i.e. by hand) to machine production. With this as the general tendency, heterogeneity of labour could be thought of as 'frictions' in its realisation, based on various barriers to the interchangeability and free mobility of labour between employments. Such barriers might or might not reflect real differences in productive capacity. S. Himmelweit and others suggest that 'skill' is a socially constructed category, often used to disguise, i.e. rationalise, discrimination and divisions in the labour force. Marx himself took note of the artificial

⁴⁸S. Himmelweit, 'Value Relations and Divisions Within the Working Class', Science and Society, Vol. 48 No. 3 (Fall 1984), p. 324.

nature of certain traditional distinctions of skill.⁴⁹ S. Himmelweit would, in fact, turn the usual approach right around and treat skill as functioning mainly as one instance among others of the more general explanatory category of barriers to the mobility or interchangeability of labour.⁵⁰ Various forms of heterogeneity, not based on genuine differences of skill, but rather on non-skill attributes of the labourer, such as sex, race, age, etc., are brought together by her under this category of 'barriers to mobility'.

The difference between the 'abstract labour' and 'embodied labour' approaches may be illuminated with a few comparisons. In the 'abstract labour' approach it is quite possible to take into account the fact that lower paid workers in one area of production, whose product realises less value in the exchange process, put in more labour-time (working longer hours or more intensely) than better paid workers with a more valuable product elsewhere, which contradicts the usual assumption of the homogeneity of labour in an embodied labour approach. The differential is maintained through exclusion, for different reasons, of the former from the jobs of the latter. Removing the employment barrier between them would have the effect, under the assumed competitive conditions, of the movement of the lower paid workers towards the higher paid employment and the movement of capital towards the cheaper workers.

Where such barriers exist, workers' labour will in general produce different amounts of value as reflected in the price of their products and the workers will be paid a different price for their

⁴⁹Marx, Capital Vol. 1, p. 309 n. 19.

⁵⁰Ibid., p. 335.

labour-power. As a consequence, different correspondences will exist between the hours of socially necessary labour-time they devote to production and the value created by it. Similarly, while a homogeneous, interchangeable working class would have not only the same wage, but would also share a common set of norms and practices acceptable to them as wage-labourers, for non-interchangeable workers, wages will differ as will working conditions. On the other hand, a difference might exist between workers, let us say, a matter of skill, in the same line of work (producing the same product), so that use-value and value correspond, but not labour-time. If the skilled worker produces the same use-value at a faster rate, this worker would produce proportionately more value and also be paid proportionately more (or else their employment level would expand or contract relative to the unskilled workers). Differences between workers across national boundaries could be treated in the same way. As Himmelweit says, "It is the exchange process and the exchange process alone which shows commodities to be of equal value, so it does not make sense to talk of an unequal exchange of values, or of any transfer of value taking place through such an exchange."⁵¹

The two aspects of the problem of heterogeneous labour, for which Marx provided the problematic dual proportionality solution, can be treated separately in the 'abstract labour' approach. In the 'abstract labour' framework, the two exchange relations which exist within the problem of heterogeneous labour - the purchase of the product of labour and the purchase of labour-power - potentially pose separate reduction problems until some connection is established

⁵¹Ibid., p. 339.

between them. As it is, S. Himmelweit reasserts Marx's original thesis of their dual proportionality on the basis of the uniform rate of exploitation under the competitive conditions assumed in her analysis:⁵²

"If one set of workers is paid at a different rate from another, capitalist competition in the product market will ensure that the general rate of profit obtains; their products must therefore sell at correspondingly different rates. On the other hand, since capitalist competition in the labour market will ensure that workers who produce equivalent value are paid the same, the only way unequal wage rates will persist is if different groups of workers produce value at different rates."

Her method of grounding the equalisation of rates of exploitation in conditions of competition is an improvement over Marx's account⁵³ in removing the troublesome feature of basing the 'law' in the direct response of workers to inequalities in the rate of exploitation since value is not a phenomenal category, i.e. a datum of their experience. Nevertheless, it seems like a very strong claim, one whose necessity in an 'abstract labour' is not very clear. Marx himself is quite ambiguous between treating it as a genuine economic law under capital as against a provisional, simplifying assumption (in the context of the discussion of the transformation problem).⁵⁴ The equalisation condition and the associated interdependence between value created and the value of labour-power — depends on very restrictive conditions for the rest of the value system. A uniform rate of exploitation over all the labour

⁵²Ibid., p. 334.

⁵³K. Marx, Capital Vol. 3, p. 275.

⁵⁴I am thinking not so much of his statement of the tendency on p. 275 of Capital Vol. 3, but his longer discussion in Chapter 3 (p. 145) concerning the effect of variations in the rate of surplus value, which is presented not only as changing over time, but as coexistent differences between capitals.

inputs, when multiple types of labour contribute in the production of each type of commodity a value proportional to the value of their labour-power (the wage-rate), would require an analogue in price terms to the equal organic composition of capital, which appears as a very restrictive case in the transformation problem.

To demonstrate the point one has to go beyond the purely verbal approach. The formalisation of the theory of value itself appears to be controversial and has definitely been avoided on the 'abstract labour' side of the debate over value theory in Britain. This appears to be more a matter of the dynamics of debate here than anything inherent to the use of a formal mode of expression. If the 'abstract labour' critique of the neo-Ricardian 'embodied labour' concept of value has been kept on a verbal plane in Britain, formal alternatives have been developed in France, W. Germany and the United States. These are intended to express some of the main tenets of the 'abstract labour' approach, some of which we have seen in Part I. The recently translated work of U. Krause (1982), which we will consider shortly, presents one such systematically developed 'abstract labour' approach to the formalisation of Marxist value theory, which employs the formal techniques of P. Sraffa. Its principal feature is the explicit treatment of the relation between the concept of value as abstract labour and the heterogeneity of concrete labours.⁵⁵

Meanwhile, the thesis of the 'abstract labour' approach as developed in Britain that prices, or exchange values, are the only valid form of representation in value theory seems to be obviously aimed towards the exclusion altogether of neo-Ricardian modes

⁵⁵U. Krause, Money and Abstract Labour (London: Verso Editions, 1982), published in German in 1979.

discussing value theory. Possibly, this reaction is rooted in the lack of leverage on the debate of a purely interpretive recasting of the same formal apparatus into 'abstract labour' terms. Yet, a strict adherence to a position of price as the only representation of value has its own shortcomings. By excluding labour quantities in the discourse of value theory, it threatens to collapse the category of value into price, with the consequence, pointed out by A. Shaikh, of preempting any distinction between value produced and value realised. Values then change with every movement of price, and commodities produced for direct use and only incidentally exchanged are not distinguishable from commodities produced for exchange.⁵⁶

If one works only with price terms, value relations can be represented through a kind of short form of the Sraffian method in conformity with the stricture that value (i.e. abstract labour) itself is *not* represented by any measure other than price. The resulting treatment of (heterogeneous) labour may then be compared with the previous examples and the difficulty in the dual proportionality relation explained. We take a standard set of price of production equations as a starting point:

$$p = (1+r)[pA + wL] \quad (29)$$

This is a variation on the price equations of Rowthorn (Eqs. 13 and 13') and Bowles and Gintis:

⁵⁶ A. Shaikh, 'The Poverty of Algebra', in I. Steedman et al., The Value Controversy (London: New Left Books, 1981), p. 299-300.

$$p = (1+r)[pA + w_0 l + wL]$$

$$p = (1+r)p(A + BL) \quad (30)$$

The labour term in Eq. (29) is employed only in the capacity of representing labour as an element of production. Here we use L matrix Bowles and Gintis to represent heterogeneous labour within and between different branches of production.

The money representation of various value relations can be derived from Eq. (29) as follows, using the same notation as before:

$$\text{Total new value created: } py = px - pAx = wLx + ewLx$$

$$\text{Total value paid to labour: } wLx \quad (31)$$

$$\text{Total surplus value: } ewLx \quad (= r(pAx + wLx))$$

$$\text{Rate of exploitation: } e = \frac{py - wLx}{wLx} \text{ or } \frac{r(pAx + wLx)}{wLx}$$

Without the gross and net output vectors (x and y), the aggregate values would be disaggregated into n branches of production. The labour terms, representing concrete labour inputs, conjoined to their wage rates define both labour's portion of the monetary cost in prices of production (Eq. 29) and the monetary expression of the values of labour-power (Eqs. 31). They have no direct role in representing value.

In the absence of explicit value equations, with value expressed in terms of quantities of (abstract) labour, there is no requirement to show how labour is reduced to a common basis as in Rowthorn (1974, 1979) and Bowles and Gintis (1977). In any case, the direct summing of different labour times (L) would have no meaning. We appear, instead, to have come full circle on the question of the reduction of

heterogeneous labour, now deliberately and explicitly identified with the exchange process. The end result is a form of representation of heterogeneous labour, which conforms to Marx's original hypothesis except in one significant respect: the differential between wage-rates is unexplained. In particular, the wage differential is not attributable in S. Himmelweit's approach to a difference in value of labour-power.

On the other hand, the attempts by Rowthorn (1974, 1979) and Roncaglia (1974) to resurrect Hilferding's solution is not only limited to dealing with the phenomenon of skilled labour, but also base themselves in a theory of value which transforms it into a general system of social accounting (in labour-time units).

Formalisation of the Abstract Labour Approach

U. Krause (1979) achieves the feat of providing a formal derivation for an 'abstract labour' theory employing a Sraffa-type formalisation of the system of value. In his approach all concrete labour quantities are held to be heterogeneous at the outset (i.e. cannot meaningfully be added together). Their homogeneity as abstract labour quantities is derived as a result of the system of exchange, rather than methodologically in the form of a simplifying assumption.⁵⁷

⁵⁷The approach is intended as a formal realisation of Marx's conception as expressed in Capital Vol. 1, p. 166-7: "Men do not therefore bring the products of their labour into relation with each other as values because they see these objects merely as the material integuments of homogeneous human labour. The reverse is true: by equating their different products to each other in exchange as values, they equate their different kinds of labour as human labour. They do this without being aware of it."

In this regard, U. Krause is in substantial agreement with R. Rosdolsky's response to Böhm-Bawerk to the effect that the reduction of qualitatively different forms of labour to a single homogeneous entity - abstract labour - is an effect of the exchange process and is prior to the particular question of skilled labour. He regards the latter problem - the reduction of 'complex' to 'simple' labour - as a special problem on a par with other forms of variability in the category of labour-power, e.g. such as the phenomenon of labour segmentation based on the worker's sex, race, age, etc.⁵⁸ U. Krause is of the opinion, however, that the traditional (Hilferding) solution to the problem of skilled ^{labour} is a rather dubious procedure and does not discuss it further.⁵⁹

The nub of Krause's proposal is to shift the locus of the problem of labour heterogeneity from its post factum position as a secondary modification of the basic value categories to a prior aspect of the theoretical derivation of value. Normally, such a step is bypassed under what U. Krause calls the 'dogma of homogeneous labour', which is the standard (simplifying) assumption of the homogeneity of labour employed in both traditional Marxist accounts and in the usual neo-Ricardian formulation of the labour theory of value. Under the assumption of the homogeneity of labour, grounded in an actual tendency, the value directly corresponds to labour content - either directly and indirectly embodied labour, or in a more refined form as

⁵⁸U. Krause, op. cit., p. 174 note 1: "The measure a_{ij} in which one hour of labour of type i is equated with an hour of labour of type j as abstract labour may depend on such diverse factors as the sex, age, race, or even religious affiliation of the workers (it varies from country to country)."

⁵⁹Ibid., p. 176 note 6.

the 'average socially necessary labour' required for the reproduction of commodities. In other words, value is derivable from the material or technical structure of production.⁶⁰

One notorious consequence of this assumption, in his view, is the contradictions encountered in the transformation process, from values to prices of production. The 'dogma of homogeneous labour', long treated as a necessary condition (or assumption) for the derivation of the relation of prices to values in the scheme of simple commodity production, is the basis for a theoretical structure which, to adequately reflect the capitalist system of production, requires the modification to prices of production under the equalisation of the rate of profit, which suspends the initial condition of the equality of price and value in the individual commodity.⁶¹

U. Krause's formal approach takes the analysis of abstract labour, such as that of S. Himmelweit (1984) discussed above, a step further by giving a theoretical account of the derivation of abstract labour (i.e., value) from concrete labour under the exchange process. We take as a starting point for this discussion the price of production equations with heterogeneous labour already described (Eq. 29):⁶²

$$p_j = (1+r) \left[\sum_i a_{ij} p_i + l_j w_j \right] \quad (32)$$

⁶⁰U. Krause extends the critique of neo-Ricardianism from the 'abstract labour' theorists to adherence to the traditional conception of the labour theory of value, which also rests on the supposition of the homogeneity of labour, cf. *ibid.*, p. 101.

⁶¹*Ibid.*, pp. 101 and 139.

⁶²For the corresponding equation in U. Krause, *ibid.*, p. 120 and 122.

and in matrix form:

$$p = (1+r)[pA + wL] \quad (32')$$

Two features in particular should be noted. The matrix L of labour expended in production is restricted in the discussion to a diagonal matrix, which allows only one type of labour to each commodity. It is, thus, less general in form than that of Bowles and Gintis (1977) discussion. U. Krause's main results are developed for the restricted case, and the reader is referred elsewhere for an extension of the theory to multiple types of labour per commodity.⁶³ The second feature is that the wage term w is a vector of different wage rates, w_j . No initial assumption of uniformity in the wage-rate is made. In Krause's view, a uniform wage-rate is tantamount - at the level of prices - to the assumption of homogeneous labour. Thus, the production price equations incorporate heterogeneity in both the labour and wage elements.

The production price equations (Eq. 32) relate prices of production to the rate of profit and the wage rates, when the physical or technical aspect of the production structure, represented by A for a given set of input-output coefficients and L for the concrete labour inputs. Two simplifying assumptions, commonly employed at this point, are set aside. One is the assumption of a fixed uniform wage-rate ($w_j = \bar{w}$), congruent with an assumed homogeneity of labour, ^{which} allows the determination of relative prices of production and the rate of profit.

⁶³Ibid., p. 177-8 n. 7. He notes that the two types of labour matrix correspond to the substantive difference between a division of labour in society (diagonal matrix) and a division of labour within the production process (full matrix).

The second simplifying assumption set aside is to define the wage-rate (the w_j) as a bundle of commodities purchased at their prices of production, which eliminates the wage terms from the equations, another method of reducing the number of variables to be determined to the number of equations. The latter approach is employed, for example, by Bowles and Gintis (1977) above. From a theoretical point of view, there is little to be gained in this way, as Krause points out, because the array of consumption bundles in the B term is not any simpler than the wage term displaced by it. In any case, it is a poor way to reflect the market system.

Having disposed of the preliminary comparisons with previous approaches, we can now concentrate on the real matter of interest in Krause's analysis, his derivation of the reduction coefficients which transform heterogeneous concrete labours in L to value terms as (homogeneous) abstract labour. I will attempt to provide a sufficient summary of the derivation to give substance to our assessment of his treatment of the problem of heterogeneous labour in the context of previous approaches, although U. Krause's derivation is done with such skill and economy that it is difficult to convey the conceptual content with ^{out} a precise understanding of the step-by-step derivation. It appears to be an extremely significant advance over previous approaches and has the form of a general solution in the sense that it does not derive a single unique set of reduction coefficients, but rather a framework for analysing different forms of heterogeneity in the labour term. The qualitative and quantitative aspects of the derivation are covered separately. Once he has derived the general form of the reduction coefficients and the concept of abstract labour, U. Krause devotes the remainder of his argument to demonstrating the properties of one special set out of the possible range of reduction

coefficients, which he designates the set of 'standard reduction coefficients'.

The elements of the exchange relation, which form the basis of the interrelation of different forms of concrete labour as value, are depicted in the Figure 1.

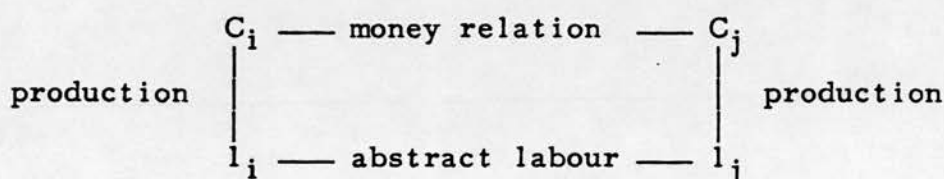


Figure 1
Relations of Production and Exchange

The concrete labour terms (l_i and l_j) of the 'use structure of production', which includes the means of production, have no relation to each other except through the system of exchange. They are quantitatively described through their natural units. The commodity products of the 'use structure of production' are also heterogeneous quantities, which are brought under a relation of equivalence through the process of exchange. A 'relation of equivalence' is understood in the mathematical sense and involves specific properties of the dyadic relation, such as reflexivity, symmetry and transitivity.⁶⁴ Presenting money as an element of the exchange process is a deliberate and critical feature of the analysis in that not every set of exchanges between commodities have the necessary characteristics of a complete and consistent system of exchange, but money (or the money-commodity) is an objective expression of a system of exchange which is complete and consistent. This analysis of money is developed by Krause in his third chapter.

⁶⁴Ibid., p. 41.

A relation of equivalent exchange between commodities mediated through money is designated specifically as the 'money relation', t_k , in Figure 2.

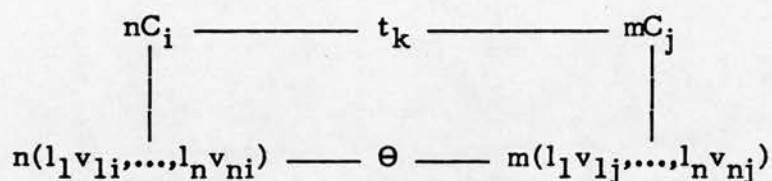


Figure 2
The Abstract Labour Relation (Θ)

This term refers to the implicit or 'induced' relation between commodities when each commodity exchanges against an equal amount of money (C_k); thus, the two monetary exchange relations $nC_i \text{ } t \text{ } uC_k$ and $mC_j \text{ } t \text{ } uC_k$ yields an equivalence relation between the commodities, designated as their 'money relation', depicted in Fig. 2 as $nC_i \text{ } t_k \text{ } mC_j$.

In any system of production consisting of a division of labour whose interdependence is mediated through the exchange of commodities, the relevant labour content includes, of course, not only the direct labour shown in Fig. 1, but also the indirect labour embodied in the means of production. To derive the direct and indirect labour content from the 'use structure of production' while respecting the initial assumption of the heterogeneity of concrete labour (which are therefore not additively combinable in themselves), a special version of the Sraffian formulae is employed, like that of Bowles and Gintis (1977). We continue to use our previous notation. The elements of the production matrix A are a_{ij} representing the input/output proportions of the use-structure of production; L is a diagonal matrix of direct labour inputs (positive labour quantities on the diagonal and zero elsewhere); and x is the gross product or output vector. Each

branch of production yielding one unit of the commodity C_j is then represented as:

$$(l_j, a_{1j}, a_{2j}, \dots, a_{nj}) \longrightarrow 1 C_j \quad \text{for } j=1, \dots, n$$

Multiplication by the gross output levels x_j gives all n processes or branches of production together:

$$(Lx, Ax) \longrightarrow x$$

With the usual manipulation of the relation of the net product (y) and gross product (x), through $y = x - Ax$, we obtain $x = (I - A)^{-1}y$ for the appropriately defined A matrix. Since the net product is also the product of the expenditure of Lx amounts of labour, this is representable as:

$$Lx \longrightarrow x - Ax$$

And the relation between direct labour input and the net product can be rewritten in the form:

$$L(I - A)^{-1}y \longrightarrow y$$

All the direct and indirect labour contributions to the production of one unit of an arbitrarily chosen commodity C_j can now be derived through the use of a specially defined net product vector, the unit vector u , whose elements are all zero except for 1 in the j^{th} position. This gives $u = (0, 0, \dots, 1, \dots, 0)$ as the product of the direct and indirect labour inputs $L(I - A)^{-1}u$. Letting the symbol V represent the inverse matrix, whose elements may be denoted as v_{ij} , U. Krause is able to simplify the representation the j^{th} production process, whose direct and indirect labour contributions have been isolated by means of the device of the unit vector. Thus,

$$(l_1^{v_{1j}}, l_2^{v_{2j}}, \dots, l_n^{v_{nj}}) \longrightarrow lC_j \quad \text{for } j=1, \dots, n$$

Although the form of L as a diagonal matrix restricts to a single type the direct labour input to the commodity, the interconnections of the use-structure of production, in which the product of one branch of production provides means of production for another, means that the production of each commodity does, in general, involve heterogeneous labour inputs. The ability to demonstrate how value can be derived given the heterogeneity of labour is, therefore, quite relevant even to this case.

As this stage of the derivation, the relation between different types of labour induced through the exchange equivalence of the commodities exchanged can only be represented as a relation between two complexes of heterogeneous labour, as shown in Fig. 2. The induced relation between the labour terms, represented by Θ , under the money relation t_k between the two commodities C_i and C_j is explicated as follows. To each unit commodity is associated a complex of concrete types of labour, lv_i and lv_j , directly and indirectly involved in its production; assuming constant returns to scale in production, the induced relation Θ equates the labour terms according to a ratio a derived from the exchange between the commodities. From $nC_i \ t_k \ mC_j$, a may be defined as the ratio m/n and:

$$n(l_1^{v_{1i}}, l_2^{v_{2i}}, \dots, l_n^{v_{ni}}) \ \Theta \ m(l_1^{v_{1j}}, l_2^{v_{2j}}, \dots, l_n^{v_{nj}})$$

or:

$$(l_1^{v_{1i}}, l_2^{v_{2i}}, \dots, l_n^{v_{ni}}) \ \Theta \ a(l_1^{v_{1j}}, l_2^{v_{2j}}, \dots, l_n^{v_{nj}})$$

We have now reached the most crucial step of the derivation. The equating of two complexes of labour through the relation Θ does

not, in itself, yield the desired demonstration of the reduction to abstract labour. To obtain this requires a demonstration of the terms of equivalence of the different types of labour to each other through the Θ relation, and that depends on being able to show that Θ is an equivalence relation in the mathematical sense. A detailed discussion ensues in which the three requisite properties of an equivalence relation are derived from the relation of exchange equivalence (t_k in Fig. 2) between the commodities. It is shown that Θ is symmetric, homogeneous and can formally support a representation of the relation between the direct and indirect labour complexes by a coefficient in the form of $a^* = n/m$. A further necessary property, the 'monotonicity' of the Θ relation, must be assumed rather than derived, and Krause discusses the grounds for it as well. Under these formal conditions, it becomes possible to derive unique coefficients for the individual types of labour under the Θ relation, which directly only relates complexes of direct and indirect labour inputs.⁶⁵

The roundabout approach to establishing Θ as an equivalence relation is due to the necessity of deriving the property of transitivity, which he is able to do on the basis of properties mentioned above. A rather complicated consideration to do with the nature^{of} monetary exchanges underlies this indirect approach. As mentioned before, the Θ relation between the labour terms is an induced relation, arising from the relation of exchange equivalence between commodities, which is itself mediated through money. Since U. Krause chose not to impose an arbitrary restriction of allowing only a single money commodity standard for the exchange system (in a

⁶⁵Ibid., p. 86-7.

theoretical evolution from barter exchange), the possibility exists of different, simultaneous money standards in the exchange system. Under this condition of the system of exchange, transitivity cannot simply be assumed among the exchange relations of the commodities themselves, and therefore is not a directly deducible feature of the relation Θ induced by the exchange process. One of the achievements of Krause's derivation is to show that the labour term coefficients (the reduction coefficients) - given the crucial assumption of the monotonicity of Θ - does not, in fact, vary with the choice of money commodity serving as the standard of exchange, even if each money commodity induces its own separate equivalence relations over the labour terms.⁶⁶

Once Θ is determined to be an equivalence relation, it becomes possible to derive the set of coefficients relating the individual labour terms to each other. Krause at this point designates Θ as the 'relation of abstract labour' between pairs of labour terms equated through the 'reduction coefficients' (k_{ij}^*). The derived reduction coefficients are all positive valued. The formal mathematical argument which supports the derivation is given in the 'Mathematical Appendix' under Proposition 6. Here we only attempt to achieve an understanding of Krause's 'relation of abstract labour' by tracing the fate of the individual heterogeneous labour terms in the course of the derivation.

⁶⁶cf. *ibid.*, pp. 89-90. U. Krause explains this peculiarity of the monetary system as the result of the interconnections which exist among the labour terms in the division of labour having the effect of making the equivalence relations among labour terms induced by any one money commodity encompass the whole 'space' of the concrete labour terms including all the other possible money commodities, and therefore each becomes valid all.

$$1 \text{ hour of labour type } i \quad \Theta \quad k_{ij}^* \text{ hours of labour type } j$$

$$\text{for } i, j = 1, \dots, n$$

The reduction coefficients enable value or 'quantity of abstract labour' of a commodity to be defined in terms of labour. Krause's reduction coefficients, however, are relative in form, giving the weight of one type of labour only relative to another. Consequently, abstract labour can only be expressed in relative terms. Abstract labour, therefore, does ^{not} have the same units as concrete labour. As a ratio of concrete labour terms, the time dimension is lost, so that it makes no sense to speak of 'so-many hours of abstract labour'. U. Krause defines a linear functional of the form $f_g(x) = \sum x_h k_{hg}^*$ in which to express the (relative) quantity of abstract labour, with labour of type g as the standard, so that the value of a commodity C_i is represented as follows:

$$l_{ig}^* = f_g(l_i v_i) = \sum_j l_j v_{ji} k_{jg}^* \quad \text{for } i = 1, \dots, n$$

The value of one commodity C_i relative to another C_j may be defined as the ratio of their abstract labour quantities l_{ig}^*/l_{jg}^* (each expressed in terms any one concrete labour l_g as the standard). The ratio turns out to be the same as the exchange ratio (prices P_{ik} , P_{jk}) of the same commodities (each expressed as a relative against the money commodity C_k). This relationship is referred to as the 'fundamental relation' by U Krause, because it provides the connection between circulation (relative price) and production (relative labour value).⁶⁷ The notation shown here can be simplified by dropping the

⁶⁷ Ibid., p. 90.

index for the money commodity out of the relative price expression, which remains the same whatever money commodity; and similarly for the abstract labour value.

$$\frac{p_i}{p_j} = \frac{l_i^*}{l_j^*} \quad \text{for any pair } C_i, C_j \quad (33)$$

We may now express the exchange ratio, or relative price, in terms of the reduction ratios (k^*), which convert different concrete types of labour into abstract labour quantities.

$$\frac{p_i}{p_j} (k^*) = \frac{\sum_h v_{hi} l_h k_h^*}{\sum_h v_{hj} l_h k_h^*} \quad \text{for any pair } C_i, C_j \quad (34)$$

where, as previously explained, the v_{hi} and v_{hj} represent indirect labour inputs. It should be noted that Krause's 'fundamental relation' establishes the proportionality of prices and labour content of traditional value theory, but only with respect to the weights derived under the concept of abstract labour.

The full 'System S', as Krause calls it,⁶⁸ contains two sets of equations: the 'exchange curve', which is the set of equations of the sphere of circulation (Eq. 34) giving the relation of relative prices and abstract labour quantities in the exchange process, and the 'reproduction prices', which are the set of price of production equations, (Eq. 32') describing the cost structure of the sphere of production. Brought together, we obtain the 'System S' (see below):

⁶⁸Ibid., p. 122.

Conjoining the 'exchange curve' equations to the 'reproduction price' equations causes the interdependence of the labour in production to be mirrored in a transformed way in the exchange process as homogeneous abstract labour in circulation, with the notable effect of preserving the proportionality of prices and values in the context of prices of production. This result of Krause's derivation connects us back to the discussion of other 'abstract labour' approaches to the transformation problem at the end of Part I.

The System 'S'

$$\frac{P_i}{P_j} (k^*) = \frac{\sum_h v_{hi} l_h k_h^*}{\sum_h v_{hj} l_h k_h^*} \quad \text{for any pair } C_i, C_j$$

$$p = (1+r) [pA + wL] \tag{35}$$

Whose variables to be determined are:

the reduction coefficients	$k^* = (k_1^*, \dots, k_n^*)$
the wage rates	$w = (w_1, \dots, w_n)$
prices	$p = (p_1, \dots, p_n)$
the uniform rate of profit	r

The System S, as Krause points out, is open to many different sets of solutions for the reduction coefficients, which, with the rate of profit given, allow the determination of prices and relative wage rates. Among the theoretically possible solutions is the one which corresponds to the assumption of homogeneous labour, in which the reduction

coefficients are all equal to one. Obviously, the system is formally quite flexible and capable of reflecting quite varied forms of the heterogeneity of labour. With respect to solving the equations of the system in conformity with the tenets of the theory of value, which the number of variables makes ^{this} rather open and indeterminate as is, priority lies with the reduction coefficients, through which ^{are} stipulated what value each type of labour is counted as creating. Together with the pre-determined levels of direct labour input, they determine the relative prices of the commodity products.

The procedure could be reversed in practice: One may work from prices and the data of the direct labour inputs to derive information as to the relative weights of different types of labour in the production of value by solving for the reduction coefficients, insofar as the 'fundamental relation' (Eq. 35) requires the proportionality of relative prices and relative values.

The implications of one specially constructed set of reduction coefficients, which U. Krause designates the 'standard reduction', is considered at length. The 'standard set' is the vector of positive reduction coefficients (k^*) which satisfy the following condition:

$$\frac{l_i^*}{k_i^* l_i} = \frac{l_j^*}{k_j^* l_j} \quad \text{for } i, j = 1, \dots, n \quad (36)$$

The condition indicated is a constant ratio across all commodities between the labour directly expended in the production of any one commodity, measured in terms of its contribution to abstract labour, and the value of the commodity as the total direct and indirect labour inputs in abstract labour terms. U. Krause's choice of this artificial set of reduction coefficients is rooted in its close relation to Sraffa's

concept of the basic commodity.⁶⁹ Certain theoretically significant features of the System S can be demonstrated on the basis of these coefficients. Among the results of particular interest, but not further discussed here, are:

- 1) Relative wage rates (w_i/w_j) are equal to relative reduction coefficients (k_i^*/k_j^*), or equally, to relative new value created per commodity unit and hour of labour ($k_i^*l_i/k_j^*l_j$).⁷⁰
- 2) If the entire wage is consumed (no savings), then rates of surplus value (e_j) are uniform and also equal to the aggregate (social) rate of surplus value.⁷¹

What are the possibilities for non-standard reduction coefficients in Krause's schema, which are of greater interest in the applications of value theory than his 'standard reduction coefficients'? We have already noted the restriction of the labour matrix L to diagonal values, which represents only one type of labour in the production of each commodity. This restricts the scope of the heterogeneity of labour to intersectoral differences, when each commodity corresponds to a branch of production. To treat hierarchical or other differential relations among types of labour within a sector would require a non-diagonal labour matrix L of the sort used by Bowles and Gintis (1977). This is apparently possible in U. Krause's approach, although the standard reduction and the results associated with it do not always

⁶⁹Ibid., p. 124.

⁷⁰Ibid., p. 126.

⁷¹Ibid., pp. 127 and 128.

exist in this case.⁷²

Marx's dual proportionality condition, interrelating value created, wage rates and the equal rate of surplus value, which S. Himmelweit reproduced in her abstract labour framework, are shown by U. Krause to be derived from the rather special set of standard reduction coefficients. While it is true that they are uniquely derivable under any set of production conditions (with the usual mathematical restrictions on the form of the production matrix), they are not meant to be realistic; they have the role, instead, of a theoretical construct for studying the characteristics of the system in the same manner as Sraffa's use of the standard commodity. Consequently, the reduction coefficients in the normal case will differ from the standard ones and the dual proportionality insisted upon by S. Himmelweit will not apply.

However particular sets of reduction coefficients are to be specified, which are subject only to the condition of the 'fundamental relation', i.e. the proportionality of prices and values of commodities, this abstract labour approach effectively dissolves the traditional transformation problem. No 'transformation' is required from values (or simple prices), specified under one set of conditions, to prices of production specified under another set. The 'relation of abstract labour' Θ already implies the proportionality of values (i.e. abstract labour) and prices under a uniform rate of profit, which is the condition just now referred to as the 'fundamental relation', and the two are simultaneously resolved in the system S. Indeed, taking the vantage point now of Krause's abstract labour schema, the

⁷²Ibid., p. 177 n. 7.

transformation problem is explicable as an artifact of the assumption of homogeneous labour as the starting point of the traditional conception of the labour theory of value.⁷³

The other side of the heterogeneity of labour problem, the wage-relation, is provided a general solution in U. Krause's framework, which encompasses a number of specific possible outcomes. His treatment of labour-power could be considered an advance over previous treatments examined in two respects: Krause's framework not only allows wage differences in the analysis, but also incorporates workers' savings. To see how this is done, but with an interest in saving space, we consider the elements which bear directly on the relation between wages and consumption vis à vis the analysis of the reproduction labour-power, rather attempting to summarize his derivation.

U. Krause treats the analysis of the reproduction of labour-power at the concrete level only in terms of the commodities which enter into the consumption of different types of workers. Workers' consumption is represented in the conventional way as an array of commodities, quantitatively scaled to one unit of labour-power (which is specified as an hour's worth of labour-power sold to capital).

$$(b_{1i}, \dots, b_{ni}) \rightarrow \text{1 hour of labour-power of type } i$$

for $i=1, \dots, n$

These consumption vectors are brought together in the matrix **B** for the n types of labour-power, but without the usual subsistence requirement interpretation. The fundamental role of exchange in the

⁷³Ibid., pp. 138-39.

'abstract labour' approach includes the wage-relation, which is a monetary relation, and this implies the workers' free choice of what commodities to consume. Therefore, Krause regards it as impossible to adequately represent the wage with a fixed pattern of consumption.

The commodities which enter into consumption have both a price and a value, from which is derived an expression for the 'reproduction price' (p_B) and 'reproduction value' (l^*_B) of an hour of labour-power.

$$\sum_j b_{ji} p_j \quad \text{reproduction price}$$

$$\sum_j b_{ji} l_j^* \quad \text{reproduction value} \quad \text{for } j=1, \dots, n$$

The wage, which is the price of the commodity labour-power, need not be the same as the reproduction price of labour-power. Assuming any difference normally to be positive, the wage w_i of the i^{th} type of labour-power can be divided into savings (w_i^S) and expenditures on consumption (w_i^R):

$$w_i = w_i^S + w_i^R \quad \text{for } i=1, \dots, n \quad (37)$$

where $w_i^R = \sum b_{ji} p_j$. Significantly for the value of labour-power concept, the direction of determination, in Krause's view, should be thought of as running from the wage term to the elements of consumption; not the other way around as in a strict subsistence theory of the wage, which also happens to exclude savings.⁷⁴ Because of this treatment of the savings aspect, labour-power must be regarded

⁷⁴Savings being a surplus over consumption requirements would normally not be considered part of the maintenance requirement for labour-power, but view needs to be reconsidered in the analysis of consumption. A distinction can be made between savings as a reserve for future needs and savings aimed at the accumulation of wealth.

as an exceptional, non-produced commodity in that the 'fundamental relation', which holds for all the commodities entering into its reproduction (i.e. implying an equality between labour-power's reproduction price and reproduction value) does not apply to the wage.

U. Krause proceeds from this specification of the elements of the analysis to the derivation of the concepts of 'surplus product' and 'surplus labour' in vector form as the relation between net product and total expenditure on production (for the labour entering into the latter). With the aid of the reduction coefficients, he derives a series of value concepts: 'value of the net product', 'reproduction value' of labour-power and 'surplus value', all expressed as quantities of abstract labour.⁷⁵ If we note that 'surplus value', which is also the value of the 'surplus product', is being defined as a difference between the value of the net product and the value of workers' expenditures, then we see that Krause is by definition treating workers' savings as a form of surplus value.

Switching our focus on the wage-relation from the reproduction of labour-power to production relations, the money wage-rate paid out by capital for labour-power yields a total sum ($W = wLx$), whose complement in the total price of the net product (py) is the profit to capital (P).

$$py = (px - pAx) + wLx = P + W \quad (38)$$

One should note that the relation between the wage, an exchange-value category, and reproduction value affects the meaning of 'surplus value' and 'rate of surplus value'. The latter is defined as

⁷⁵Ibid., pp. 106-7.

the ratio of surplus value to the reproduction value of labour-power. Whereas, in keeping with Krause's theoretical views, the creation of surplus value by definition occurs within the sphere of production, there is superimposed over this a sphere of exchange in which reallocation of a portion of surplus value may occur. The profit which accrues to capital, thus, may be less than the surplus value created, and this possibility arises because of the treatment of savings in Krause's analysis.

The existence of a distributional factor relative to surplus value can be expressed through an index, which Krause designates the 'reproduction index'. It is defined as the ratio of total wages and the total reproduction price of labour-power (which, it must be remembered, is based on workers' consumption):

$$q = \frac{wLx}{pBLx} \quad \text{reproduction index} \quad (39)$$

The reproduction index expresses three distinct situations in the relation between capital and labour according to the value of q . Where q is equal to 1, wages are, in effect, equal to the value of labour-power, and profit and surplus value are identical (while workers' savings are zero). In this case, the fundamental value/price relation (Eq. 33) is extended to the commodity labour-power and the reproduction index is fixed at the 'reproduction point' where the wage is just adequate, in terms of commodities, to reproduce labour-power. The reproduction index q may move about the region above this point ($q > 1$), in which case some portion of surplus value goes to the workers in the form of savings. Conversely, below this point ($q < 1$), some of capital's profit derives from paying the workers less than they require for their reproduction.

We have noted that no transformation problem exists per se in Krause's system. Nevertheless, we may compare his specification of the relations among the value terms as it concerns labour-power with previously considered 'abstract labour' approaches, in particular that of A. Lipietz (cf. Fig. 4).

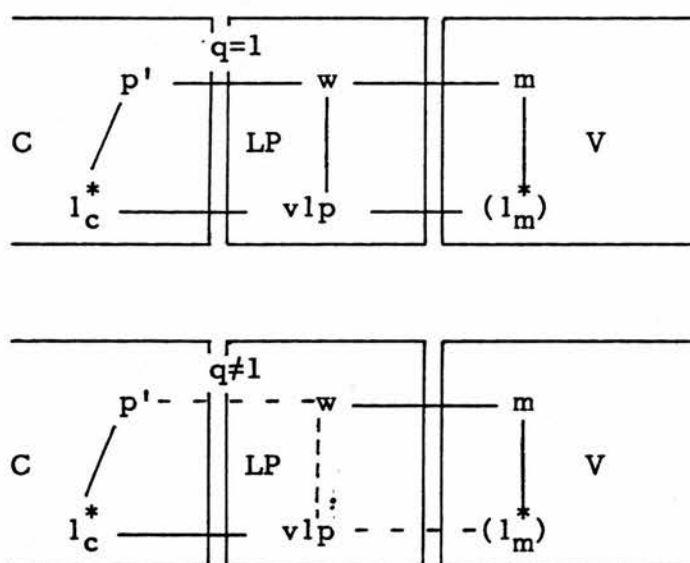


Figure 3.
Krause's Reproduction Index (q)
and the Wage Relation

U. Krause's specification of the value relations is the more general one of the two, but A. Lipietz's formulation is not directly compatible. Recall that Lipietz has chosen to redefine the value of labour-power concept as a means to resolving the transformation problem. He equates it with variable capital, i.e. the value expressed in the wage paid out by capital. By contrast, U. Krause's formulation, directed to the problem of the heterogeneity of labour, restores at least an analogue of the old value of labour-power concept through his concept of the 'reproduction value' of labour-power l_c^* (as in Fig. 3). The value of labour-power and his new concept are equivalent only

when the 'reproduction index' is equal to one, and Lipietz's alternative does not arise at all. We can consider a conceptual experiment in which the two definitional alternatives for the value of labour-power are compared in isolation from other elements by removing the difference in the derivation of the value of workers' consumption (l_c^* in Fig. 3 here and Fig. 5 of Ch. 1).

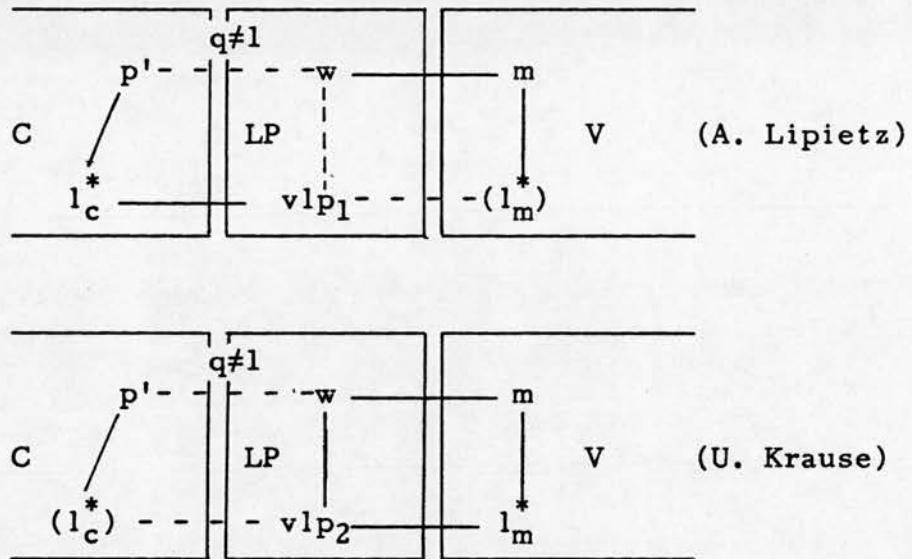


Figure 4.
Comparison of Krause's (vlp_1) and Lipietz's (vlp_2)
Definitions of the Value of Labour-Power

In Lipietz's schema, we recall that the formal reason for the proposed shiftⁱⁿ the basis of the definition of the value of labour-power from consumption to variable capital was the divergence between values and prices in the commodities entering into consumption due to the transformation of values into prices of production. The effect of this was to destroy value equivalence between consumption, represented by the l_c^* term, and the wage. To preserve the relations of value equivalence under the value of labour-power concept, Lipietz proposed to identify the latter with variable capital. Lipietz's

theoretical strategy can be interpreted in another way through U. Krause's 'abstract labour' framework: Because Lipietz limits himself to a definitional distinction between abstract labour and embodied labour, and relies, in effect, on the homogeneity of labour assumption to transform concrete labour into value, his schema perpetuates the transformation problem, which he is only able to resolve by a strategy of redefining the value of labour-power. If we were to incorporate Krause's explicit reduction of heterogeneous concrete labours to abstract labour into Lipietz' schema, justifying this on the grounds that all 'abstract labour' approaches treat the exchange process as an essential feature of value theory, then the difference in the definition of the value of labour-power becomes the only difference between their schemas, which we may then compare on substantive grounds.

The two definitions of the value of labour-power are based in different aspects of the wage relation. If the question of savings is set aside, the two yield identical results for the system of value relations surrounding the reproduction of labour-power. The modified version of Lipietz's approach would appear like the upper portion of Fig. 3. Considered only as a matter of interpretation, the choice would seem to amount to a preference between starting points: either to base the value of labour-power concept in consumption as the value embodied in or associated with labour-power or to base it in the relations of production as part of the cost structure. As soon as savings⁷⁶ are taken into account, however, a difference emerges between the two definitional strategies.

⁷⁶We may think of 'savings' as a catch-all term for any portion of the wage in excess of the minimum requirement for the reproduction of labour-power, since it would be conceptually arbitrary to identify a priori all consumption with the reproduction requirements and similarly with identifying all monetary savings with a surplus.

What is at issue is not whether workers' savings can be introduced into the analysis, which has only the effect of 'loosening' up the relation among the terms, and not contradicting it (so long as labour's dependence on capital is preserved). There is, however, substantive difference in the theoretical treatment of savings between its interpretation as part of overall surplus value (Krause's schema) or ignoring any difference between workers' consumption and savings and identifying surplus value only with what capital retains (Lipietz's schema). The preferable approach would seem to depend on one's view of the nature of workers' savings, of which two arguments can be anticipated. On the one hand, analysis of the kind of savings which exist among wage-labourers may reveal a use-value basis, e.g. as a reserve fund against the hazards of life, such that it would be more reasonable not to separate them categorically from the ensemble of consumption requirements; on the other hand, savings may sufficiently function as a form of escape from the constraints of wage-labour's dependence on capital that they should be regarded in a different category from consumption. Analytically, it seems to me either is a plausible outcome of the inherent functions of the money-form.

The abstract labour schema, most advanced in the work of U Krause, is not yet fully developed. He himself points out some of the limitations of his schema besides the diagonal labour matrix L , which we have mentioned already ^{are} not absolutely binding. Other unresolved problems, however, are to be regarded as future areas of development, e.g. the problem of fixed capital, joint production, etc.⁷⁷

⁷⁷Ibid., p. 140 and 177 n. 7.

Summary: The Value of Labour Power and the Heterogeneity of Labour

The problem of the heterogeneity of labour proves to be no barrier to the Marxist theory of value. While even the early Marxist discussion of the traditional skilled labour problem took the position that resolution of the problem ^{is} not as crucial to the theory's validity as Böhm-Bawerk claimed, there remained the secondary problem of demonstrating how the phenomenon of skilled labour could be incorporated within the theory. Modern attempts to revive the classic Hilferding (1904) solution also prove to be unsatisfactory (B. Rowthorn, 1974, 1979; A. Roncaglia, 1974). Meanwhile, S. Bowles and H. Gintis (1977) succeed in demonstrating that value theory can be presented without the reduction of heterogeneous labour to common (homogeneous) labour terms.

Their thesis, however, that heterogeneity of labour in the empirical form of segmented labour is the predominant form of heterogeneity within capitalist relations of production was found to create a confusion by changing the object of the argument. There is a confusion between the question of the homogeneity (i.e. commensurability) of labour as a theoretical condition of possibility for value theory and the existence (or not) of a real tendency to the homogenisation of labour under capital, although Marx, in the context of discussing other issues, certainly made use of the latter idea to simplify discussion by circumventing the need to put skilled (or, 'complex') and unskilled (or, 'simple') labour on a common basis in his (mainly illustrative?) labour-time calculations. The traditional conceptions of the labour theory of value have preserved this link in the discussion of value theory by justifying the use of directly additive embodied labour quantities (the homogeneity of labour assumption)

through the claimed actual homogeneisation tendency. The two homogeneity conditions can be distinguished, however, under the 'abstract labour' approach by giving the proper weight to Marx's concept of the 'form of value' (S. Himmelweit, 1984; S. Mohun, 1985; and U. Krause, 1982). By doing so, the focal issue can be discerned more clearly as the relation between value and labour, which depends on the commensurability of heterogeneous labours, rather any supposed real tendency affecting the concrete forms of labour. The commensurability of labour as value (abstract labour) can be established in a 'abstract labour' approach as a relation induced through the process of commodity exchange, independently of any homogeneisation of labour within the sphere of production.

The 'abstract labour' approach also demonstrates how the wage differential aspect of the heterogeneity problem can be treated separately from the question of the commensurability of labour; at least this is found to be the case in the particular approach formulated by U. Krause. To see this we form a mental picture of labour-power differentiated into a multiplicity of types with different values of labour-power. The wage of each type of labour-power is established in the wage-relation, which is thereby independent of the value each type of labour contributes to the commodity output, which is determined by the 'relation of abstract labour' induced by the exchange process among the products of labour. A consequence of separating the two aspects of the original heterogeneity problem is that surplus value, reckoned as the difference between the wage and the value created (as in A. Lipietz and D. Foley) or workers' consumption and value created (U. Krause) need not be the same for the different types of labour.

With the value of labour-power no longer serving as the theoretical link between the wage and value creation aspects of the problem of labour heterogeneity, as in Marx's dual proportionality solution, the question is now whether the value of labour-power should be multiplied into a kind of vertical array for the different types of labour-power. Heterogeneity of labour is not restricted in the 'abstract labour' framework to the two forms discussed, but these are ^{the} principal forms of the phenomenon considered so far. Labour market segmentation concerns the effect of discriminatory treatment of workers, independently of their productive qualities as labour-power, i.e. differences in their value-creating capacity. This category is even extended by S. Himmeweit (1984) to the other form of labour heterogeneity, skilled labour, which seems not unreasonable insofar as skilled labour is not satisfactorily dealt with in value theory à la Hilferding through putative labour inputs to the formation of skills. The question of skilled labour is a substantive one in that there is no inherent theoretical necessity in the framework outlined above for reproduction requirements to differ between different types of labour-power.

The wage question must be addressed on its own as a substantive question within the theory of value. The existence of wage differences is self-evident; therefore, relative to the value of labour-power concept, the main problem is on the side of consumption - as the question of whether and how necessity is structured into the practices which constitute the conventional standards of living of different wage-labourers. Without the element of necessity in the relation between conventional living standards and the wage differences, the value of labour-power concept cannot be used to mediate the relation between production and consumption in the form Marx employed (the 'cost of production' version).

Even if Marx's conception of the value of labour-power proves unworkable, and the analysis 'retreats' to the alternative of identifying the value of labour-power with variable capital in the manner of A. Lipietz (1982), the variability of the wage will still present a very complex phenomenon to deal with. Differentiating between different types of labour-power each paid a different wage entails a corresponding differentiation within the value of labour-power and variable capital. In addition, there is a question of which elements of variable capital should be tautologically identified with the value of labour-power. Variable capital includes not only the wage as paid directly to the wage-labourer, but a number of other expenses involved in the employment of labour-power. These and other problems, taken up only in a general manner here, can be handled in many different ways.

Certain taxes, for example, such as the employer's contribution to social security, are part of the difference between capital's labour-related costs and the wage received by the workers. They may be treated either as part of variable capital or as a deduction from surplus value in the same way as the corporate income tax. If employment taxes are treated as variable capital, a choice remains whether they should be counted in as a constituent of the value of labour-power. This need not be done, depending on how strict an analogy is theoretically desired between labour-power and the commodity. The variable capital definition of the value of labour-power can tolerate any divergence between the two as long as the wage (and the value of labour-power) is strictly a portion of variable capital.

Note that we are not speaking here of the more common concern with the distinction between the gross and net wage created by a tax levy on the wage. The question of taxation in the theory of value obviously requires more discussion, but one method is to let the theoretical account follow the form of the tax, so that, for instance, the employer's and employee's contributions to social security would be distinguished according to their incidence as determined by the state's tax laws.⁷⁸

There are indirect labour expenses paid by capital, which are associated with the process of hiring and firing of labour, provision of canteens for the workers, payroll expenses, health and safety measures, even social work and psychological counselling,⁷⁹ etc., which pertain to the labour force as a whole rather than individual types of labour-power. These forms of labour-related expenses raise unresolved questions of analysis. Should they be counted as part of variable capital on the grounds that they are labour-related expenses? If so, then they are distinguished from the value of labour-power insofar^{as} they are not allocatable between individual types of labour-power, as one might do with job-related training costs. Or, such collective expenditures might be thrown in with other 'unproductive' expenditures, in Marx's sense, such as purely commercial expenses,

⁷⁸Because taxes on income are imposed by the state as legal obligations, they could be counted on the side of necessity among the elements of consumption taken as a whole and figured into the value of labour-power. This alteration in the sense of 'necessary consumption', away from an excessively naturalistic use-value conception, might also include other forms of social obligation, e.g. union dues, professional fees, church tithes and the like, as elements of normal living standards.

⁷⁹As in one major U. S. Steel plant in the Chicago area, employing over 30,000 workers, described to me by its former director, A. Weissman, director of the Social Work Department, Mt. Sinai Hospital, New York.

which thereby count as charges against — surplus value. The normal accounting practice, apparently, is to lump them in with "administrative overheads" or the equivalent,⁸⁰ so that they are not distinguished from other costs of running the business. The wedge these indirect labour expenses drive between the category of variable capital and the value of labour-power embodied in the wage does not create a problem for the underlying value relation posited in the 'abstract labour' approach.

A more intimate connection between the heterogeneity and homogeneity of labour can be considered, which brings the aspect of the actual homogeneisation of labour back into the picture. As we have seen, the theory of value does not require the commensurability of labour to be based in any actual tendency to the homogeneisation of concrete labour, e.g. in terms of time, intensity, conditions of labour, form of the labour-process, etc., but neither is this process theoretically excluded. The process encompasses various forms of the rationalisation of the labour process, such as the reduction of productive labour to part tasks, the regulation and routinisation of time, rhythm, movements, etc. of these tasks. Such standardisation of labour processes provides capital with continuity and flexibility in the scale of production.

The other sense in which we may speak of a process of homogeneisation of labour is integrally tied to the differentiation of labour within the division of labour. This specifically social concept of homogeneity concerns the characteristics of interchangeability and relative indifference of workers between different employments, rather

⁸⁰N. W. Chamberlain and D. E. Cullen, The Labor Sector (New York: McGraw-Hill, 1971), p. 300.

than the notion of physical uniformity and standardisation of work across the division of labour. Thus, for example, whereas road-grading is a very different labour activity from typing letters or assembly-line welding, and each corresponds to a distinct job with little cross-over of labour between, each is nevertheless affected by the process of standardisation. D. Gleicher (1983) has emphasised this aspect of the homogenisation of labour, which takes the form of a general simplification of social ties within production (and consequently of productive employment as a basis of social identity), deriving fundamentally from the separation of labour from the means of production and the product.⁸¹

This Janus-like combination of heterogeneity and homogeneity of labour can be viewed as arising from a complex, articulated division of labour structured in terms of positions (i.e. jobs) rather than persons, which gives capitalist relations of production its independence from the particularity of the social ties of former modes of production. At the limit, a job classification occupied by a single worker would embody this form of the homogeneity of labour, so long as the wage-relation between capital and labour is not a particularistic connection (e.g., nepotism). We are led by these considerations to a more finely graded conception of the heterogeneity of labour than in the concept of labour segmentation. Since the analysis of heterogeneity/homogeneity as a concrete process concerns the interrelation of different types of labour in production, rather than labour-power, job classifications rather than sub-categories of workers would be a more accurate basis for determining the limit of the degree

⁸¹D. Gleicher, 'A Historical Approach to the Question of Abstract labour', Capital and Class, No. 21 (Winter 1983), pp. 114-18.

of differentiation. Different levels of heterogeneity could be considered in terms of a notion of normal ranges of mobility across the field of particular jobs.

As the worker moves from one job to another, the value which the individual worker produces and the wage they receive is subject to corresponding shifts in an 'abstract labour' framework in which the degree of valorisation of each labour is determined in the exchange process. It would be tempting to pin the attribute of heterogeneity to the job rather than the worker, so that the job is thought of as temporarily forming the worker (as a specific type of labour-power) but for the fact that the wage is paid to the worker for their capacity to perform the job. Job definition and grading is, perhaps, more accurately reckoned as a selection criterion, retaining labour as the substance of the analysis. The (standardised) tasks which are performed in a job are, then, analytically, the true content of the heterogeneity of labour.

Analysis of the different forms of the wage is a major topic in itself. We consider some basic notions relating the plethora of wage-forms to value theory before moving on to the analysis of consumption. Only a very restricted conception of the form of the wage has entered into the discussion of the heterogeneity of labour. The basic conceptual form is the wage-rate as a price per unit of labour-power. The wage-rate, in turn, is differentiated relative only to the distinction between different types of labour-power. A complete theory of the wage, however, would need to account for the actual diversity in the form of the wage. This is not merely a matter of taxonomic interest, but is meant to address a specific concern with another source of variability in the value of labour-power deriving from the element of labour discipline built into the wage-form. With

many possible variations, the form of the payment of the wage is manipulable with the effect of making the wage as payment for labour-power contingent on the performance of labour.

However, even considering the form of the wage in the superficial sense, its variability and complexity is rather staggering, as reflected, for instance, in the scope of the term 'the wage package' in modern collective bargaining. To the extent that component elements of the wage-form are discrete, recombining and variable as to amount the value of labour-power becomes a multidimensional phenomenon. Imagine, for example, the individual wage as a point in the multidimensional space of wage-forms, then the wage of any collection of workers, even in a very narrowly-defined category of labour-power, would be representable as a vector of variables, some with discrete, step-wise values and others continuously variable. Assuming all the component elements are reducible to the homogeneity of money, the total wage, being the sum of a number of variables, will behave like a continuous random variable.⁸² The characteristic wage will, then, need to be defined as the expected value and variance of a statistical distribution, which might range over a group of workers or over labour as a whole.

While we have been considering the function of the wage in terms of the reproduction of labour-power, the wage also has a discipline function in transforming labour-power into labour to the extent that payment is contingent on performance.⁸³ All forms of the payment of

⁸²cf. E. Farjoun and M. Machover, Laws of Chaos: A Probabilistic Approach to Political Economy (London: New Left Books, 1983) for an extended treatment of such an approach to value theory.

⁸³A. Lipietz points out that in the formalisation of value theory, this transformation from labour-power to labour performed is rarely explicit. For discussion and an explicit formulation cf. A. Lipietz (1982), pp. 62, 72 and Appendix A.

the wage can be expected to carry this basic contingency, which invests it with the element of labour discipline, but particular forms of the wage make the connection in specific ways. The impact of differences in the wage-form on the value of labour-power, already suggested, is exemplified in the piece-rate, which Marx analysed at length. The relevant connection in this case is the differentiation in the payment of labour on the basis of their differential productivity. From the point of view of the discussion of the heterogeneity of labour, the piece-rate system has some peculiar features. Wage differences are obviously tied to real differences in productive capacity between individual workers of the same type. Furthermore, even if acquired skill - the proficiency of the detailed labourer, the peculiarly degraded form of skill characteristic of modern manufacture in Marx's view⁸⁴ - accounts for most of the difference, other non-produced differences, such as motivation, inherent dexterity, etc. are valued in the same manner. Nevertheless, analysis of the particular wage-form does lead in this case to accounting for a wage difference in connection with a significant instance of skilled labour.

While reckoning labour discipline to be a pervasive element structured into the wage-relation, the analysis would be quite one-sided if all differences in the wage-form were to be accounted for in this way. The role of the worker in the wage-relation would be reduced to that of pure object of the exchange process, neglecting the peculiarity of labour as also the subject of the exchange-relation, as

⁸⁴K. Marx, Capital, Vol. 1, p. 458.

J. O'Connor points out.⁸⁵

Wages, their forms and levels, from the point of view of the subject are the result of struggle. Even as the wage fulfills its basic function for capital (the reproduction and discipline of labour-power) through the contingency of employment, the terms of the wage-relation can be stricter or freer. Variation in the forms and levels of the wage may be the result as much of concessions as of human engineering. Such a view helps to slant the interpretation of value theory away from an economistic reading, but it creates an ambiguous ground on which to choose between the two basic approaches to the definition of the value of labour-power: whether as labour's requirement to maintain itself or as the price capital must pay to obtain labour-power.

The analysis of the heterogeneity of labour and the wage could be carried to a level below the individual labour-power, which has been assumed as the natural unit of analysis. The wage could be decomposed as an intersection of the set of standardised distinctions and rules governing differential payments. A motive for proceeding in this way arises from the semi-independent character of job-ranking and pay grading, such as seniority, academic qualification, span of authority over others, etc., which can be superimposed over the phenomenon of labour segmentation, which is thought to mainly involve exclusion from the 'better' jobs for e.g., women, immigrant labour, minorities, age, handicapped, etc. The result is a kind of combinatorial logic in which labour is distributed over a grid whose

⁸⁵J. O'Connor, Accumulation Crisis (New York: Basil Blackwell, 1984), p. 154, and elsewhere. O'Connor develops the notion of objective and subjective aspects of the wage-relation into a critique cum modification of the traditional concept of the value of labour-power.

elements determine the heterogeneity of labour through a set of intersecting criteria rather by the natural units of the job or the individual labour-power. Moreover, from a quantitative point of view, not only could a wage differential be conceived for each dimension or criterion, but a rule or set of rules would be associated with each dimension which systematically modulates pay relative to work performed - such as overtime rates, hazard pay for special assignments, shift work. The implicit scope of the analysis of heterogeneity would then reach down below the level of the job to a systematic account of highly regulated variations on even a day-to-day basis.

All diversity of wage forms and differences in levels translate ultimately into the unilinearity of income differences (with the exception of in-kind benefits), whose homogeneous, quantitative character can be viewed as having both a homogenising and a differentiating effect on consumption. Heterogeneity of labour-power translates into social stratification. On this basis, the theoretical function of the value of labour-power concept can be viewed as bridging the gap between the heterogeneity of labour and the variability of the wage on the side of production and the stratification of living standards on the side of consumption.

PART THREE

DOMESTIC LABOUR (MOMENT OF REPRODUCTION)

Since the various positions in the domestic labour debate, as a controversy over value theory, are familiar by now, this chapter will attempt to explore newer ground. Many now take the view that it is inappropriate within the terms of Marx's value theory to incorporate domestic labour under the category of value.¹

The attempts to incorporate domestic labour directly into the theory of value aimed to give an account of the place of domestic labour within the political economy of capitalism through its relation to the reproduction of labour-power, which was the most obvious link to value theory. The link was indirect because the two main forms of domestic labour ^{are} unpaid: housework, which serves towards the maintenance of present labour-power, and childcare, which serves towards the raising of future labour-power. If it had worked, the 'political economy of housework' would have integrated the sexual division of labour with the analysis of class division of labour to the extent of explaining, if not the origin, at least capital's interest in perpetuating women's subordinate role as homemakers (as wives and mothers). The argument for the advantage to capital of having women

¹For a summary of the debate, see T. Fee, "Domestic Labour: An Analysis of Housework and its Relation to the Production Process," Review of Radical Political Economics, Vol. 8 No. 1 (Spring 1976): 1-8; S. Himmelweit and S. Mohun, 'Domestic Labour and Capital', Cambridge Journal of Economics, Vol. 1: 15-31; and P. Harvey, 'Marx's Theory of the Value of Labor Power: An Assessment', Social Research, Vol. 50 No. 2 (Summer 1983): 305-40.

specialised to the role of unpaid domestic labourers took various forms, but to the same effect: a lower value of labour-power than would otherwise be the case.² These linkages between domestic labour and value theory are criticised in a number of places.³

The specific objections to a value-theoretic treatment of domestic labour are presented here in a summary form. The direct assimilation of domestic labour with the Marxist concept of productive (value-creating) labour early in the debate⁴ turned on the idea of domestic labour as a previously unrecognised, but undeniably useful and necessary form of labour, which made the specific contribution in a capitalist context of reproducing labour-power. This approach, however, had created only a superficial synthesis by failing to engage with the distinction Marx explicitly made between productive labour in its capitalist form as labour which produces surplus value for capital and other forms of labour.⁵ The subsequent approach of W. Secombe⁶ sought to locate domestic labour in a value theory context through a

²M. Benston, 'Political Economy of Women's Liberation' (1969), p. 10; J. Harrison, 'The Political Economy of Housework' (1973), p. 43; J. Gardiner, 'Women's Domestic Labour' (1975), p. 54; J. Gardiner, 'Political Economy of Domestic Labour in Capitalist Society' (1976) in D. L. Barker and S. Allen, p. 115-16.

³e.g., J. Gardiner, S. Himmelweit and M. McIntosh, On the Political Economy of Women, CSE Pamphlet No. 2 (London: Stage One, 1976), p. 10; also see the reviews of the debate referred to above.

⁴M. Dalla Costa and S. James, The Power of Women and the Subversion of the Community, Bristol: Falling Wall Press, 1972.

⁵For a very clear critical discussion, cf. T. Fee, op. cit., p. 2-4.

⁶W. Secombe, 'The Housewife and Her Labour Under Capitalism', New Left Review No. 83 (Jan-Feb 1973): 3-24 and 'Domestic Labour: Reply to Critics' New Left Review No. 94 (Nov-Dec 1975): 85-96.

two stage argument. Formally, domestic labour was rendered value-creating by virtue of the fact that it contributed necessary labour to the reproduction of labour-power which, being a commodity, provided the requisite grounds for its valorisation through exchange. Then, the particular manner in which domestic labour created value, since it was not performed in any direct relation to capital, was analogised to Marx's concept of 'unproductive labour'. This led Seccombe to construe domestic labour as a form of service implicitly performed in exchange for revenue. Therefore, domestic labour was a form of labour governed by the rule of equivalent exchange under the law of value, but not creating surplus-value. The objection to this procedure lay precisely in the absence of the direct relation of exchange necessary to make sense of a putative regulation of domestic labour through the law of value.⁷ Finally, the neo-Ricardian approach of J. Harrison (1974)⁸ switches from value to labour-time as a direct accounting term. This allows the claim that surplus labour is appropriated from women's domestic labour and is realised in the form of a higher surplus value even if no value is created by domestic labour.

A similar conclusion is drawn by T. Fee (1976) and S. Himmelweit and S. Mohun (1977) from their surveys of the domestic labour debate that domestic labour is "separate from, but integral" to the capitalist

⁷M. Coulson, B. Magaš, and H. Wainwright, '"The Housewife and her Labour Under Capitalism" - A Critique', *New Left Review*, No. 89 (Jan-Feb 1975), p. 62; T. Fee, op. cit., p. 5; S. Himmelweit and S. Mohun, op. cit., p. 28.

⁸J. Harrison, 'The Political Economy of Housework' (1973), p. 43; for a similar argument based on the counterfactual thesis that domestic labour reduces the value of labour-power below the actual subsistence level which is equal to the labour embodied in the subsistence commodities and domestic labour see J. Gardiner, 'Women's Domestic Labour' (1975), p. 54 and her 'Political Economy of Domestic Labour in Capitalist Society' (1976) in D. L. Barker and S. Allen, p. 115-16.

process of production.⁹ As such, it pertains to the sphere of individual consumption, which was not analysed per se by Marx. Although domestic labour is performed outside of any direct relation to capital, it is materially implicated in the reproduction of labour-power in both the day-to-day and generational sense and therefore is part of the reproduction process of capital taken as a whole. While it does not count as either 'productive' or 'unproductive' labour relative to capital and surplus value, as labour it is no different than wage-labour. The fluid boundary which separates the sphere of capitalist production proper and the realm of 'individual consumption' moves over the common field of purposeful activity. The division of this field into wage-labour and domestic labour which gives rise to the two distinct spheres of activity is actually formed at two points, both fluid in the historical development of capital: the wage-relation and the purchase of the means of existence. The fluidity of the boundary at these points consists in the transformation of activities which may once have been an aspect of the self-reproduction of labour into commodities produced by wage-labour. That movement corresponds to M. Aglietta's depiction of the accumulation of capital as the extension of the wage-relation over the field of social relations.¹⁰ The movement may also go in the opposite direction. What was once normally done as part of the labour process of commodity production by the seller is shifted onto the buyer as a means of cheapening the commodity. N. Y. Glazer (1984) has recently proposed this as ^anot previously considered area of

⁹T. Fee, op. cit., p. 7.

¹⁰M. Aglietta, A Theory of Capitalist Regulation, p. 18.

the exploitation by capital of women's unpaid domestic labour.¹¹ The classic case occurred in the area of retailing practices in the trend to customer self-service and the reduction of sales staff, a practice which introduced in the 1930s.¹² Glazer proposes the concept of 'work transfer' to capture the essential continuity of productive activity which constitutes both unpaid domestic labour and wage-labour. The implications for the intensification of domestic labour of women, who are the main shoppers, and also for the reduced clerical staff, who are also mainly women, are obvious. Furthermore, the passing on of cost reductions to consumers which was a principal element of persuasion proved to be quite ephemeral as retailers moved into non-price forms of competition in the postwar period.¹³ The work transfer concept applies to other areas as well, not considered by N. Glazer. A notable example is the change from selling the fully-finished product to the packaging of unassembled parts by the manufacturer, with instructions for the final assembly and a mail-in warranty card. With the increased mobility that has come with the automobile, home visits have declined in favor not only of the visit to the doctor's or dentist's office to mend bodies, but also for the repair of televisions, sewing machines, vacuum cleaners, etc. What a nightmare if the plumbing came to be treated this way. Form-filling is another area of work transfer, which can be seen as shifting unproductive clerical labour onto unpaid client

¹¹N. Y. Glazer, 'Servants to Capital: Unpaid Domestic Labor and Paid Work', Review of Radical Political Economics, Vol. 16 No. 1 (Spring 1984), p. 61-87.

¹²Ibid., p. 74.

¹³Ibid., p. 74.

and customer. Similarly, one sees the expansion of do-it-yourself activities based on the provision of semi-finished raw materials and power tools designed for home use.

If work transfer extends the labour process, devalorised, into the domestic sphere, with its implied contraction in the field of activity of wage-labour, the reverse process is the absorption of what was formerly done in the home into capital's field of action through the commoditisation of consumption, with the implied extension of the wage-relation. This can be seen in examples like convenience foods, micro-wave ovens, dishwashers, etc.

In locating domestic labour outside the sphere of capitalist production proper, and thereby the labour of women under the sexual division of labour, the reverse side of the analysis sees women, particularly married women, as a reserve army of labour. Not only are women the principal absorbers of changes induced through the process of work transfer for the obvious reason that work transfer can only occur at the interface between commodity production and consumption, and women are the primary, day-to-day shoppers (the quantity of work involved in sporadic do-it-yourself activities of the men notwithstanding); but women have also had the role of absorbing extraordinary demands for labour-power created by the national emergencies of both world wars. It appears, however, that the really long-term change is not the repeated movement of women in and out of the labour force as in the reserve army of labour view, but a permanent extension of the wage-relation, drawing women out of the home. The implications of this change for the concept of the value of labour-power as the theoretical mediator of the analysis of the sphere of consumption will^{be} the principal focus of the remainder of this part.

The Multiple Wage Family and the Value of Labour-Power

One of the conclusions of the domestic labour debate is the existence of a definite theoretical problem posed by extent of the employment of women for the value of labour-power concept. The CSE Pamphlet No. 2 (1976), for example, noted that neither of the two theoretical avenues which might be considered for incorporating women's wage work have been worked out. These are to analyse women's wage work in terms of the value of their own labour-power or to consider women's wages in context of a relocation of the concept of the value labour-power from the individual (male worker) to the family.

"Once we take account of the fact that over half married women are currently in paid work outside the home, we are forced to explore the relation of women's wages to the wages of men and to the value of labour power. We can approach this problem either by an analysis of the value of women's labour power or by examining the role of women's wages within the formation of the value of labour power for the family unit as a whole. Neither approach has been much discussed as yet. We therefore see this as an important area for future work."¹⁴

Whichever approach is taken, the phenomenon raises a theoretical problem for the value of labour-power. The theoretical position heretofore has been to treat the value of labour-power as an attribute of the individual worker hired by capital (which pays according to the category or type of labour-power), while assuming the family to be the normal social unit of the reproduction of labour-power. The phenomenon of working mothers/wives poses a double complication from the point of view of theory: the multiplicity of wage-earners in the family unit and the inequality of wages between men and women.

¹⁴Conference of Socialist Economists, On the Political Economy of Women, CSE Pamphlet No. 2 (London: Stage One, 1976), p. 11.

If, starting from the wage-relation, the concept of the value of labour-power is applied to the women wage-earners, on the reasonable ground that the form of the wage-relation represents a commoditisation of their labour-power no differently than for men (but subject to discrimination in the labour market), the theory is immediately presented with a problem on the consumption side. In the absence of any further theoretical adjustment, the combination of wage incomes in the family, which is by no means a universal form, would represent a duplication in the wage's function (but not the amount) in the reproduction of labour-power. Cutting the theoretical knot from the other side by shifting the value of labour-power attribute from the individual worker to the family will preserve a unity of function between the value of labour-power and the social form of the reproduction of labour-power, but creates a complication on the wage side. How is the value allocated over more than one labour-power commodity when wage-relations with different capitals are independent relations of each other?

Marx suggested a process of adjustment on both sides which more or less preserves the original conception. Consider his statement to the effect that the employment of family members resulted in a depreciation in the value of the individual labour-power (of the male wage-earner):¹⁵

"The value of labour-power was determined, not only by the labour-time necessary to maintain the individual adult worker, but also by that necessary to maintain his family. Machinery, by throwing every member of that family onto the labour-market, spreads the value of the man's labour-power over his whole family. It thus depreciates it. To purchase the labour-power of a family of four workers may perhaps cost more than it formerly did to purchase the labour-power of the head of the family, but,

¹⁵Similarly, Wages, Price and Profit. Selected Works, p. 229.

in return, four days' labour takes the place of one day's, and the price falls in proportion to the excess of the surplus labour of four over the surplus labour of one." (Capital Vol. 1, p. 518)

At the same time, the extension of the wage-relation to the other members of the family raises the level of consumption needs.

"Since certain family functions, such as nursing and suckling children, cannot be entirely suppressed, the mothers who have been confiscated by capital must try substitutes of some sort. Domestic work, such as sewing and mending, must be replaced by the purchase of ready-made articles. Hence the diminished expenditure of labour in the house is accompanied by the increased expenditure of money outside. The cost of production of the working-class family therefore increases, and balances the greater income. In addition to this, economy and judgment in the consumption and preparation of the means of subsistence become impossible..." (Capital Vol. 1, p. 518, n. 39)

Marx's account obscures the order of events in the actual historical development of the wage-relation. The early history of the wage-relation began with the widespread employment women and children, who came gradually to be excluded from employment partly in response to early trade union movement.¹⁶ There was an evolution towards the idea of the 'family wage', in which the man is the sole breadwinner of the family. This idea was never in fact realised; working class women have always needed to work to help maintain an adequate level of income for the family. M. Barrett and M. McIntosh (1980) consider the 'family wage' largely a myth.¹⁷ And the post-war development, as is well-known, continues the trend towards the multiple wage family.

The theoretical problem in this context is to determine what mode of the reproduction of labour-power is in operation. In this

¹⁶M. Barrett and M. McIntosh, 'The "Family Wage": Some Problems for Socialists and Feminists', Capital and Class, No. 11 (Summer 1980): 51-72.

¹⁷*Ibid.*, p. 56.

connection the actual phenomena present a diversity of situations not only in terms of historical development, but also as a range of co-existing situations. Consequently, the matter could be viewed as either the existence of competing modes of the reproduction of labour-power, of which the standard account by Marx reflects one form only, but is open to the addition of others; or, the conceptual form of the value of labour-power is too restrictive to be adapted to the actual diversity of situations.

Let us go back to the third 'moment' of the value of labour-power in the form in which Marx presented it:

"The owner of labour-power is mortal. If then his appearance in the market is to be continuous, and the continuous transformation of money into capital assumes this, the seller of labour-power must perpetuate himself 'in the way that every living individual perpetuates himself, by procreation'. . . Hence the sum of means of subsistence necessary for the production of labour-power must include the means necessary for the worker's replacements, i.e. his children, in order that this race of peculiar commodity-owners may perpetuate its presence on the market." (Capital Vol. 1, p. 275)

Both an essential truth and an oversimplification are contained in this formulation. The third 'moment' of Marx's concept of the value of labour-power is the fusion of a function (the maintenance of the supply of labour-power) with a particular form (the individual male wage). The essential truth expressed in this way is that a global condition for the reproduction of the capitalist system of production, the reproduction of the labour-power, rests on a private, individual basis - it is entirely up to the worker whether or not to have children. Although the process of reproduction lay outside the system of production proper, the desire for control over procreation did exist. It was not rooted in a fear of future shortages of labour-power, but rather the effects of too many children among the working class poor.

Oversimplification in the theory lies in seizing upon one particular historically significant form and elevating it into the very definition of the value of labour-power. The 'family wage' emerged as a distinct social form out^{of} a prior condition of the multiple wage-earning family. The decline in married women's paid work associated with the rise of the factory system as the major form of wage-earning employment was accompanied by a history of struggle between male workers (mainly skilled workers in the trade union movement) and employers, who continually sought to reduce labour costs with lower-paid women workers in deskilled jobs. In 1851, the proportion of married women engaged in factory labour was about a quarter according to the figure J. Gardiner (1974) obtains from M. Anderson's Preston sample from the 1851 census.¹⁸ While she reckoned the Lancashire figure was higher than elsewhere at the time, subsequent data from the Department of Employment seem to indicate this was the normal level for working wives.¹⁹ The figure of a quarter is significant in two senses: (1) that families with working wives were a minority among wage-earning families by 1851, but (2) such families constitute a sizeable fraction of the wage-earning class. The figure appears all the more significant in the light of the major reason for mothers working being poverty, while the general tendency was not to if it were possible.²⁰ The decline from this level reflects the

¹⁸J. Gardiner, 'Women's Work in the Industrial Revolution' in Conditions of Illusion, ed. by S. Allen et al. (Leeds: Feminist Books, 1974), p. 249.

¹⁹C. Hakin (or Hakim), reported in Guardian (Sept. 2, 1981) and Times Higher Education Supplement (Sept. 4, 1981).

²⁰J. Gardiner, op. cit., p. 250.

predominance of the 'family wage' arrangement among families, progressively established over the nineteenth century, which reduced the level of married women's employment reported in the British censuses to around 10% from 1901 to 1931. The level of recorded employment for married women of these later censuses is subject to the qualification of possibly understating their paid contribution to working class family incomes derived from informal sorts of employment.²¹

Table 1. Women in Labour Force As Percent of Their Group By Marital Status,²² U.S.

	Total	Single	Married	Widowed or Divorced
1890	18.9	40.5	4.6	29.9
1900	20.6	43.6	5.6	32.5
1910	25.4	51.1	10.7*	34.1
1920	23.7	46.4**	9.0	--
1930	24.8	50.5	11.7	34.4
1940	25.8	45.5	15.6	30.2
	27.4	48.1	16.7	32.0
1950	31.4	50.5	24.8	36.0
1960	34.8	44.1	31.7	37.1
1970	42.6	53.0	41.4	35.7
1980	51.1	61.5	50.7	41.0

(note: * Not comparable to earlier or later censuses due to slight difference in enumeration basis. ** Single includes widowed or divorced.)

²¹M. Barrett and M. McIntosh, op. cit., p. 57.

²²Upper half of the table derives from the decennial census of the United States, as reported in Historical Statistics, Colonial Times to 1970, series D 49-62; the lower half is based on the Current Population Survey, as reported in Statistical Abstract of the United States, 1985, No. 670, p. 398.

The American census figures over the period from 1890 to the present show the same low level working wives at the turn of the century, rising to over half by 1980 (Table 1).

The existence of more than one wage-earning pattern among families poses complex problems of interpretation for the value of labour-power concept. Very different expectations can be attached to the three principal components of the value of labour-power. We begin by positing that a dual wage-earning mode of provision of the customary standard of living of the family involves a shift in the position of the wife from dependent to labour-power in her own right. This change in the wife's position has no effect on the husband's relation to capital in that his wage and surplus value remain the same. This aspect of the wage-relation can be multiplied as many times over as there are wage-earners in the family. Thus, formally, the move from the single to dual wage-earner mode of existence for the family, which we here continue to take as the social unit of the maintenance and reproduction of labour-power, represents an extension of capitalist social relations of production. It increases the pool of value-creating labour. Unless the rate of exploitation changes, the amount of surplus value would have to be greater.

We now have the context in which to work through the implications of the value of labour-power concept. From the point of view of its form, the most obvious change to consider is the distribution of the burden of the two functions of maintenance and reproduction of labour-power over two wages instead of one. The other component of the value of labour-power associated with the analysis of the heterogeneity of labour, presumably, will be peculiar to each individual labour-power within the family, with the notable effect of creating varying combinations of wage-levels vis à vis the

stratification of consumption. Finally, considered abstractly as two modes of the reproduction of labour-power, they need only differ in total family income to the extent of the additional work-related expenses of the wife/mother. Possibly, some premium must exist as an inducement, by way of compensation for the extra pressures placed on domestic life - but this would be a relevant factor only to the extent that there is a choice between modes.

Less abstractly considered, a transition must be envisioned from the 'family wage' to the dual-wage mode of the reproduction of labour-power. Taking the starting point as the introduction of a second wage-earner, the situation can be viewed as the creation of a disjuncture or theoretical gap between the rate of exploitation and the level of reproduction requirement in the value of labour-power. If the wage-level preserves the old rate of exploitation, then the combined wages raise the level of family income above the former reproduction requirements, even taking into account some increase in the cost of living of the dual wage family due to work-related expenses. Unless the customary standard of living rises to this new level of income, the value of labour-power is effectively annulled. Taking the opposite possibility, a general fall in the wage-level might be envisioned, to the level of the old standard of living of the family (plus a margin for the greater cost of living). This would imply the determination of the wage by the value of labour-power and a general rise in the rate of surplus value. The rate of exploitation is always in a definable relation to the level of the wage, the real theoretical issue lies with the relation between family income and level of customary requirements of the standard of living mediated by the wage-level.

Another aspect to the complications relative to the value of labour-power concept derives from an elementary fact of the wage-relation. The wage relation between capital and labour is a social relation based on the worker as individual, whereas consumption and the reproduction of labour-power is a joint affair of the family. Although the value of labour-power concept encompasses two different social units between the wage-relation and the maintenance and reproduction of labour-power, there is no inherent difficulty in interrelating one to the other when there is only one wage-relation. The complication appears in the joining of two (or more) wage-relations to the single social unit of the reproduction of labour-power. The dual wage opens an area of indeterminacy in terms of the division of financial responsibility for the maintenance and reproduction of labour-power. The value of labour-power concept faces the classic problem of joint products which arises in the analysis of production. In practice, a stable settling point is imaginable anywhere in the range from the full single family-wage model (male or female, if we suppose the achievement of sexual equality in wages) to a dual-wage model with equal wages. The points in between would correspond to the continuation of the historically unequal wages of women in the context of the combined family income as the normal source for the maintenance and reproduction of labour-power, with each wage equal to its individual value of labour-power.

Figure 1 gives a rough picture of the relative incidence of different wage-earning modes as they are now. The data are drawn from the U. S. Current Population Survey relating the frequency and level of wives' earnings to husbands earnings in married couple families. Of particular interest to this discussion are the categories of single-wage, full-time, husband, which we will refer to as the

		Dual wage, part-time		
		12.0		
Part-time husband's		11.1	Wife's wage	
wage only		6.7	only, part-time	
		12.8	or full-time	
	9.5			
	7.8		3.6	
	7.1		3.7	
	8.1		2.1	
Single wage,			4.6	Single wage,
full-time,				full-time,
husband				wife
27.2				--
23.5				--
22.9				1.7
20.0				--
	Supplementary		Supplementary	
	wage, wife		wage, husband	
	20.8		--	
	22.7		--	
	23.6	Dual wage, ;	3.8	
	20.0	full-time	--	
		15.7		
		19.3		
		19.6		
Neither is		20.3		
wage-earner				
(e.g. retired)				
11.2	:1976			
12.2	:1979			
12.4	:1979b ²³			
14.4	:1983			

Figure 1. Percentage Distribution of Married Couple Families by Wage-Earning Arrangement, U. S., 1976, 1979, 1983²⁴

²³The data for 1979b are drawn from a different table in the Current Population Reports of the U.S. Bureau of the Census for 1979. Not all categories are distinguishable in the others. See text for explanation.

²⁴Data is drawn from U.S. Bureau of the Census, Current Population Reports, Consumer Income, Series P-60 No. 114 (July 1978), Table 28, p. 115; No. 129 (Nov 1981), Table 29, p. 116 and Table 30, p. 120; No. 146 (April 1985), Table 31, p. 99.

'traditional' wage-earning mode, and the dual-wage, full-time, husband and wife, which we will refer to as the 'dual wage-earner' mode. As will be seen Fig. 1 includes other wage-earning arrangements in the population of married couple families (excluding, therefore, single-parent families and individuals).

The 'traditional' family wage form has been in continuous decline over the postwar period as wives and mothers go out to work in increasing number. The incidence of the single male wage-earner among married couple families,²⁵ has fallen in the postwar period to about a fifth of all married couple families. The three most common wage-earning arrangements are nearly equal in incidence: 1) single wage, full-time, husband, 2) dual wage, full-time, husband and wife, and 3) husband working full-time with wife working part-time. Together they represent about 60% of married couple families (about 70% if the non-wage earner families, mostly retired, are not included).

The percentages shown in the figure should not be taken as precise estimates, as the discrepancy for the two sets of percentages for 1979 indicate. The data were actually drawn from the 'Earnings of Wife, by Earnings of Husband' table of the Current Population Survey of the U.S. Bureau of the Census. The missing percentages (--) in Fig. 1 concern categories of wage-earning arrangements which could not be distinguished on the basis of the table entries because of the partial nature of the cross tabulation (wives by husbands); e.g., where the husband was not working and the wife was working either full-time or part-time, or where the husband was not working full-time and the

²⁵The 50,090,000 married couple families estimated in 1984 (whose income data shown in Fig. 1 is for 1983) constitute about 80% of all families in that year.

wife was working either full-time or part-time. In these tables, annually published from 1976, a certain number of families drop out of the cross tabulation because, evidently, the earnings of the husband or the wife were not ascertained. The 'without earnings' entries (referring to husband or wife) in the published table combine both families with missing data and families where one or both are non-working, e.g. retired. This obviously affects the accuracy of the percentages derived from the table, but not too seriously as the 1979b series indicates. The percentages for the 1979b set are more complete because they are derived from a complete cross tabulation of the employment status of husbands and wives in married couple families, which is the reason percentages were determinable for all the categories in the Fig. 1.

An indication of how these changes have already entered into the public discourse concerning wage issues appears in the following statement in 1981 by R. A. Oswald, director of Economic Research for the AFL-CIO:²⁶

"Some have tried to divert attention from the decline in the real spendable earnings of the average production worker by arguing that this decline has been offset by the increased number of earners in most households. This sidesteps the reality that workers' real wages have declined [since 1979]."

This argument obviously cuts both ways since the force of the argument depends on what effect multiple wage earning has had on family incomes. In the particular context, R. A. Oswald was able to cite the evidence of the 1980 census that inflation had eroded median household earnings by 5.5% from 1979 even taking into account the increased incidence of multiple earner households.

²⁶R. A. Oswald, 'Why Wages Should Not Be Blamed for the Inflation Problem', Monthly Labor Review, Vol. 105 No. 4 (Apr 1982), p. 44.

Since the transition from one mode to the other vis à vis the family would entail their coexistence over time, differences are to be expected in relative income level. That the family income of a dual wage-earning family will always be higher than it would be on the basis of one of their earners alone does not thereby imply a substantially higher income for dual wage-earning families over traditional ones. If we were to reckon only on the 'three-fifths' rule for women's earnings relative to men's, then we might expect about the same relationship to hold between dual wage-earner and traditional single wage-earner families.²⁷ The actual relation of income levels will depend on who the dual earner families are, i.e. their reasons for their dual wage-earning and, in particular, on its incidence relative to the male wage-earner's income. Table 2 provides the figures for the median incomes of married couple families generally, dual wage-earner families, and the traditional single wage-earner families over the period from 1968 to 1983 for the U.S.

Table 2 shows that the median income of dual-earner families is generally higher than in the traditional form. We take a closer look in Table 3 at the distribution of dual-earner families around the median income level of all families. Because our interest is in the dual-earner family in its fullest sense as the potentially normal wage-earning mode, we have chosen a more narrowly defined group than appears in Table 2, which combines full- and part-time wage-earners. A more

²⁷ As a check on the stability of this figure, we provide the following ratios of the median money wage or salary incomes of full-time, year-round of men and women workers:

1939	1955	1960	1965	1970	1975	1980	1981	1982
.61	.64	.60	.58	.59	.59	.60	.60	.63

Source: Historical Statistics of the U.S., Part 1, G394 and G406 to 1970 (for whites), p. 305; Statistical Abstracts of the U.S., 1985, No. 755, p. 452, 1970 to 1982 for all men and women.

detailed view of dual-wage earner families are given in Table 3, corresponding to the 'dual wage, full-time' families of Figure 1, in which both husband and wife are full-time, full-year wage-earners.

Table 2. Median Family Income by Type of Family and Relationship of Earners in Married-Couple Families, U.S., 1967-1983

	All families	Dual-earner	Single-earner (husband)	All families	Dual-earner	Single-earner (husband)
	(current dollars)			(constant dollars, 1967 = 100)		
1967	\$7,933	\$9,083	\$7,579	\$7,933	\$9,083	\$7,579
1969	9,433	10,662	8,805	8,598	9,713	8,021
1971	10,285	11,856	9,682	8,475	9,769	7,978
1973	12,051	13,926	11,493	9,062	10,472	8,643
1975	13,719	16,596	13,117	8,519	10,306	8,146
1977	16,009	19,111	15,777	8,821	10,530	8,693
1979	19,587	23,308	18,850	9,030	10,745	8,690
1981	22,388	27,969	21,702	8,216	10,265	7,965
1983	24,580	30,789	23,920	8,234	10,345	8,037

[Source: U.S. Bureau of Labor Statistics, Handbook of Labor Statistics, Table 58, pp. 128-30 for 1979-1983 figures, using the Consumer Price Index for all Urban Consumers to derive the constant dollar values, Table 106, p. 350. Note: 'dual earners' refer to married couple families with two earners in which husband and wife both worked, while 'single-earners' refer to married couple families in which husband only worked.]

Table 3. Percent of Full-time Dual-earner Families,
Earnings of Wife by Earnings of Husband, U.S., 1983

Earnings of Husband	Earnings of Wife				
	\$1 to \$4,999 or loss	\$5,000 to \$9,999	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 to and over
\$1 to \$4,999 or loss	below poverty line 0.9	0.4	0.8	0.8	0.2
\$5,000 to \$9,999	0.4	2.5	1.6	1.0	0.2
\$10,000 to \$14,999	0.7	4.1	5.5	2.7	0.4
\$15,000 to \$19,999	0.5	4.0	6.8	7.0	0.8
\$20,000 to \$24,999	0.6	2.4	5.6	7.3	1.5
\$25,000 to \$34,999	1.0	2.9	7.1	10.2	3.5
\$35,000 to \$49,999	0.4	1.2	2.7	4.3	2.6
\$50,000 to \$74,999	0.1	0.2	0.8	1.7	1.3
\$75,000 and over	0.1	0.1	0.2	0.6	0.5

above
median
income,
husband
& wife

above
median
income,
husband
or wife

Median income line is \$24,580 for all families
in 1983; poverty income line was set at \$10,000.

[Source: Bureau of the Census, Current Population Reports. Money
Income of Households, Families, Persons in the U. S.: 1983 P-60
No. 146 (Apr. 1985), table 31, p. 99. Data refer to married couple
families with husband and wife both year-round, full-time workers.]

Only about a quarter of the full-time dual-earner families in 1983 were below the median income of all families taken together. This compares with an approximate 55% of married couple families with the wife not in the labour force who are below the median.²⁸ To give some substance to the median income figure for all families (\$24,580 in 1983) as a standard of comparison, we note that it is somewhat above the median income of families of union-type unskilled labourers ('machine operators, assemblers and inspectors', \$23,927) and somewhat below that of lower level administrative and clerical workers ('administrative support, including clerical', \$25,607) or skilled workers ('precision production, craft and repair', \$27,418).²⁹ When this median family income is used to divide the population of dual-earners into those above and those below it, a rather large portion of dual wage-earning families (approx. 44%) are above the line on the basis of either the husband's or wife's wage alone. An additional one-third are brought above the line by virtue of their dual wage-earning mode. Very few are below the crude poverty line of \$10,000 for family incomes, and of those who would have been below this line on the basis of one their wages (4.2%), most have brought themselves above line (2.5%), leaving only 1.7% below it.

²⁸The actual figure computed was 56% on the basis of data contained in Table 23 (p. 71) of the Money Income of Households, etc. for 1983 from the 'married couple families, wife not in paid labour force' column, which includes part-time and full-time single male wage-earners. If part-time and full-time employment were not distinguished for the dual-earner families, the percent below the median of all families would be approximately 33%, and slightly less if unemployed wives were excluded.

²⁹*Ibid.*, Table 13, p. 34.

Table 4. Percent Margin of Dual-Earner Family
Incomes over Male Single-Earner Families, U.S.,
1967-1983

	Married Couple Families ³² (000's)	Single- earner (husband)	Dual- earner (h & w)	% margin on median income
1967	43,292	35.6	32.1	19.8
1968	43,842	34.9	33.5	22.4
1969	44,436	34.1	33.8	22.1
1970	44,832	33.3	34.0	23.0
1971	45,939	33.7	33.7	21.2
1972	46,594	33.0	34.8	21.3
1973	47,185	30.8	35.6	21.2
1974	47,438	29.8	35.7	20.4
1975	47,878	30.0	35.9	26.5
1976	48,150	28.4	36.9	22.9
1977	48,131	37.3	37.3	21.1
1978	48,532	25.6	39.3	20.1
1979	49,132	24.3	40.0	23.6
1980	49,316	23.6	40.0	24.4
1981	49,669	23.2	40.2	28.9
1982	49,947	23.2	39.2	27.9
1983	50,143	22.1	40.7	28.7

[Source: Handbook of Labor Statistics, Table 58, pp. 128-30.]

³²Married couple families are subcategorised in the source table by number and type of earners. Table 4 has excluded married couple families with other earners in the middle two columns, but not the total column, as family incomes are given in terms of the median. The breakdown in the original table for the year 1983 is: No earners 13.1%; one earner 27.3% (husband 22.1% or wife 3.9% or other 1.9%); two earners 46.0% (husband and wife 40.7% or husband and other 4.2% or not husband 1.1%); three or more earners 13.6% (husband and wife 11.4% or husband but not wife 1.8% or not husband 0.4%).

While dual wage-earning families appear to be substantially better off, the picture is subject to some qualification. It was generally accepted only a few years ago that dual wage-earning was largely compensatory.³⁰ The view that wives worked out of financial need was supported by the fact that the husbands in dual-earner families generally earned less than husbands in 'traditional' families. In the full-time dual-earner families we have been looking at, the husband's median income in 1983 was \$22,118; this compares to the \$24,730 median income of fully employed married men generally.³¹ We can see in this difference the principal reason why the margin of greater income of the dual-earner family has been until recently about 20% (Table 4), when the wife's contribution from full-time employment is about 60% of the husband's earnings.

Two observations may be made concerning the trend of relative incomes between dual-earner and 'traditional' single-wage families which affects the application of the value of labour concept to these data. The comparison of married couple families in Table 2 shows that the median income of dual-wage families is not only higher than that of single-wage families with the husband only working, but their relative difference showed a clear trend to widen from about 1979.

Our first observation concerns the relative difference in family incomes. We noted earlier that some margin had to be allowed for the

³⁰H. Hayghe, 'Husbands and Wives as Earners: An Analysis of Family Data', Monthly Labor Review Vol. 104 No. 2 (Feb 1981), p. 50

³¹U.S. Bureau of the Census, Current Population Survey. Money Income of Families and Persons in the U.S.: 1983, Table 31, p. 99 and Table 37, p. 119. Comparing earnings directly, H. Hayghe (1981) reported in median annual earnings of husbands in dual-earning families in 1978 were \$14,900 compared with \$16,000 for husbands in traditional families (p. 50)

greater cost of living of dual-earner families for employment related expenses in order to get a true picture of their relative income position over the traditional mode. It is, obviously, difficult to give a precise figure to this margin. E. P. Lazear and R. T. Michael published² a very provisional study in 1980,³³ in which they devise a technique for determining the 'real income equivalence' between one- and two-earner families. They considered three kinds of factors relevant: 1) income tax difference, wherein after-tax income is held to more adequately reflect differences in standard of living; 2) work related costs, such as costs of transportation to work, requisite clothing expenditures, union or professional fees, etc.; and 3) a more difficult category of difference in household technique, i.e. differences in money expenditure to achieve the same end due to substituting marketed services for domestic labour, as in eating out or paying for laundry services. Their comparison of two-earner families with one-earner families (which is a somewhat different statistical category than we have been using) starts with an average before-tax income difference of 35% in 1972-3 for a limited sample of married couple families with no children, with husband only or husband and wife employed full-time. After taxes, the income differential is found to be reduced to 25%. When, in addition, various demographic and other differences such as educational background and age were held constant, the income differential fell to 20%, which corresponds to the difference found between one-earner and two-earner families as a

³³E.P. Lazear and R.T. Michael, 'Real Income Equivalence Among One-Earner and Two-Earner Families', American Economic Review, Vol. 70 No. 2 (May 1980): 203-8.

whole without adjustment around that period.³⁴

The detailed differences found by Lazear and Michael in the spending patterns of the two kinds of family are quite large.³⁵ The differences in actual expenditure become smaller if the background differences are held constant, but certain obviously work-related expenditures do turn out significantly greater for the two-earner family. Comparing actual expenditures differentials yields: clothing (54%), of which women's clothing (60%); durables (45%), of which vehicle expenditure (51%) and gasoline (18%); transportation (32%). Total consumption expenditure was found to be 17% higher for the two-earner family, of which about half by my reckoning is the increased expenditure on work-related items of consumption. These comparisons are very crude, of course, and for what it is worth, their attempt to derive a 'real income equivalent' yielded a level of 30% more income required for the dual-earner family to attain the same standard of living in the restricted area of consumption (non-durables and services) which their measure is able to cover. Although their measure excludes durables and savings, it does cover about 80% of consumption expenditure.³⁶ Thus, on a very limited and hypothetical (revealed preference) basis of comparison, their two-earner families actually appear to fare worse on a nominally greater income of 35%. We needn't take the result too seriously to draw support from it for

³⁴When the comparison is made between 'one-earner' and 'two-earner' married couple families, the differential runs about 5% higher than we have shown in Table 4, which compares 'one-earner, husband' and 'two-earner, husband and wife' married couple families.

³⁵cf. *ibid*, p. 205, Table 1.

³⁶*Ibid.*, p. 207.

the idea that a 20% differential is not sufficient to mark a substantial difference in living standards between single and dual wage-earning families.

The second observation on the basis of Table 4 concerns the marked trend to an increasing income differential between the two wage-earning modes. A change was already noticed in the early 1970s to the effect that the most rapidly increasing group of families adopting a dual wage-earning mode of existence was resulting from the employment of wives whose husbands were in the higher income levels. It was felt that this trend might have the effect of increasing income inequality, but little sign of this had been found through the 1970s.³⁷

What these findings suggest in terms of the concept of the value of labour-power are two superimposed changes in the wage-earning mode of existence of labour-power. There is a transformation of the normal mode for the reproduction of labour-power to a dual wage-earning basis which has been taking place gradually over the entire postwar period. On top of this has come a marked extension of the upward reach of this change into higher ranks of family income (and presumably of standards of living), associated with the specific episodes of contraction in incomes generally due to a combination of recessions and inflation in the 1970s.³⁸ The second process touches on a complicating factor in the value of labour-power concept which concerns the stratification of living standards (i.e., the 'historically and morally determined' standard of the reproduction of labour-power),

³⁷A. C. Foster, 'Wives' Earnings as a Factor in Family Net Worth Accumulation', Monthly Labor Review, Vol. 104 No. 1 (Jan 1981), p. 53.

³⁸H. Hayghe, op. cit., p. 50.

which is associated in our analysis with the heterogeneity of labour-power. In positing a stratified version of the relation between wages and the value of labour-power the same criterion would be expected to apply to families with higher and lower standards of living as an indicator of a process of transformation in the mode of reproduction of labour-power: namely, an increasing dependency on the dual-wage system for an adequate standard of living. At the same time, the freedom which more income inherently gives over the choice of what is to go into the family's customary standard of living dictates a view that more scope exists at higher levels of the (husband's) income for other than financially compensatory reasons for the wife working.

As a consequence, both a compensatory and a non-compensatory process are to be expected in the ascendance of dual wage-earning and the decline of the traditional single, wage-earning mode of existence. A shift to the multiple wage family as the dominant mode of the reproduction of labour-power would be more clearly reflected in a compensatory process, which consists of families making up for deficiencies in their income and results in a total family income which is similar to the income of all families representing the same class or type of labour-power. We might expect the combined effect of these two processes in the actual process of transition to present us with a mixture at all levels of income of those who decide to sell additional labour-power in response to financial pressures and those who are in a position to go out to work for other reasons. But we could also expect to find a bias towards necessity at the lower end and opportunity at the higher end of the income distribution, and this consideration leads us to offer an interpretation of the recent rise in income disparity in the aggregate between dual-earner and traditional, single-earner families, which has appeared in the last few years, on

top of the previous stability of the 20% margin in the long-run tendency towards the dual wage-earning mode for the reproduction of labour-power.

The two distinct processes of change suggested are these. There was a long-term compensatory process with a bias towards the lower end of the income scale, which yielded a stable margin on the order of 20% between the two wage-earning modes in the aggregate. Superimposed over this, a second, more recent process among the more affluent class of wage-earners, who either seek to raise their standard of living or find that they have done so in the course of realising other ambitions (e.g., the wife's career). A mixture of motives is not ruled out in the second case, but the significant element is the presumed greater likelihood among more affluent families of seizing upon dual wage-earning as an opportunity for material advancement - a very different process from the point of view of the reproduction of their labour-power. On the other hand, it should not be surprising if sudden accelerations in the ascendance of the dual wage-earning mode, associated with a rising disparity in the margin of family incomes over the single wage-earner families, occurred in conjunction with the successive bouts of combined recession and inflation since 1970 which have caused a general stagnation in the level of real incomes.

The appropriate difference in the balance of motives between higher and lower income dual-earner families is found in J. Hafstrom and M. Dunsing's study of wives' reasons for working, for a sample of 248 working wives in Illinois in 1970-71.³⁹ The scarcely surprising

³⁹J. L. Hafstrom and M. M. Dunsing, 'Socioeconomic and Socio-Psychological Influences on Reasons Wives Work', Journal of Consumer Research, Vol. 5 No. 3 (Dec 1978): 169-75.

result of dividing their sample into two groups by family income, above and below the mean, is predominance of non-monetary reasons for working given by wives whose family income is above the mean. More interesting is the numerical split between the two groups, as shown in the accompanying table. In the lower income portion of the sample, working wives give monetary reasons for working in a 2 to 1 ratio; while for the higher income portion, the ratio is 2 to 1 in favour of non-monetary reasons. Since a monetary/ non-monetary distinction does not coincide with a distinction between necessity and non-necessity, a more refined analysis of motives for working is obviously desirable.

Table 5. Percent Monetary and Non-monetary Reasons for Wives Working by Family Income

Reason:	Sample half	
	Income above the mean (%)	Income at mean or below (%)
Non-monetary	68	29
Monetary	32	71
	<hr/>	<hr/>
	100	100

[Source: J. L. Hafstrom and M. M. Dunsing, 'Socioeconomic and Socio-psychological Influences on Reasons Wives Work', Journal of Consumer Research, Vol. 5 No. 3 (Dec 1978), table 1, p. 171.

Note: The sample of 248 working wives in Champaign-Urbana, Illinois surveyed in 1970-71 was split into 77 above and 171 below the mean for family income.]

The whole question of the two processes would be better resolved if the typical income differential between dual-earner and single-earner families for different slices of the income scale and their relative weight in the population could be tracked over time. This would overcome the potential fallacy of composition in the argument

set forth above in that the observed widening of the income differential could result either from more affluent families becoming dual wage-earners at the same margin as the others (and responding like them to financial pressures) or from more families across the whole income spectrum taking up dual wage-earning as an opportunity to raise living standards (with the effect of widening the differential for dual-earner families over the whole population).

Data on the distribution of discretionary income as of 1981 indicate that dual wage-earning families as a whole are, in fact, substantially better off than others (Table 6). A larger proportion of them (44%) have discretionary income, which compares to the proportion of all households in the nation (30.7%), even if the average amount of discretionary income per such household is slightly less than that available to family households in which the husband works, but the wife does not.

The concept of 'discretionary income' used in a joint study by the Consumer Research Center and the U.S. Bureau of the Census is intended to capture "money available for luxuries and the good life after all necessary expenditures."⁴⁰ ^{As} the means chosen to identify which households had discretionary income and its extent, given the variability of necessary expenditures from one household to another, a cutoff figure was determined on the following basis. The 65,500 households of the Bureau of the Census' 1981 Current Population Survey were cross-tabulated according to the major characteristics which determine the amount of money a family requires to maintain a particular standard of living (Age of Householder [6] x Urban/Rural

⁴⁰ Consumer Research Center and the U.S. Bureau of the Census, A Marketer's Guide to Discretionary Income (Washington, D.C.: USGPO, n.d.), p. 7

Table 6. Households with Discretionary Income
by Type of Earners, U.S., 1981

	Husband working, wife not working	Husband and wife working	All other households
Number of households (000's)	15,139	25,940	41,290
Proportion of households	18.4%	31.5%	50.1%
Average income			
Before tax	\$26,013	\$29,884	\$13,706
After tax	\$19,732	\$22,259	\$11,243
Proportion with discretionary income	32.1%	44.3%	21.6%
Average income of households with discretionary income			
Before tax	\$44,010	\$41,234	\$27,595
After tax	\$31,383	\$29,576	\$21,184
Average Spendable discretionary income	\$9,604	\$7,649	\$6,569

[Source: Consumer Research Center, A Marketer's Guide to Discretionary Income, pp. 30-1.]

Residence [4] x Size of Household [7] x Region of the United States [4] = 672). After calculating the average annual expenditures for personal consumption for each of these household groups, those household exceeding the average of their group by 30% or more were defined as having discretionary income. The cutoff figure was chosen on the basis of the highest of the three family budgets devised by Department of Labor (for four-person households with head aged 35 to 54), which are described as relating to a high, medium and low standard of living. Since the highest of the family budgets allows for a total personal consumption expenditure about 30% higher than the average of the corresponding size and age group of households in the study, this was taken as the cutoff figure for all the 672 household groups defined by the cross-tabulation. The amount of discretionary income in each household meeting the criterion was determined as the money they had available for spending from their after tax income in excess of the cutoff level.

One can judge from the above criterion for discretionary income that a fairly generous allowance is made for the 'necessary' income and, conversely, that discretionary income is conservatively defined. On this basis, about 25 million American households had some discretionary income in 1981 and 57 million households did not.⁴¹

⁴¹The numerical relation of households and families is as follows: The total population of the United States in 1981 of 229,518,000 divided up into 82.4 million households. Of these family households numbered 60.3 million in 1981, with the balance made principally by single individuals living alone 18.9 million. Statistical Abstract of the U.S., 1985

Summary

Although this part began with the question of domestic labour, representing the 'moment' of the reproduction of labour-power, and its relation to the concept of the value of labour-power, we in fact elected to focus on a different issue relating to the connection between the value of labour-power and the family as the social unit of the reproduction of labour-power. This was the question of the multiple wage family. While the evidence is quite clear on the predominance of the dual wage-earning form over the traditional form based on the single male wage-earner, the income effect in the process of transition is quite complex. The implicit expectation derived from the value of labour-concept relating to the income difference when two modes of the reproduction of labour-power coexist (one ascendant, the other in decline) would put the dual wage-earner families substantially better off unless the adoption of this mode is primarily compensatory. The basic argument which supported the compensation thesis turned on two aspects of the situation: 1) while the median family income of dual wage-earner families is higher than single wage-earner families, the earnings of the husband are typically lower, and 2) the differential (in the aggregate) between the two has until recently been a fairly stable 20% (among full-time wage-earners), whereas the women have generally been paid about 60% the wages of men on a full-time basis. Quite in contrast to the picture formed on this basis is the discovery that in terms of which households are in possession of discretionary income, a more than proportionate number of the dual wage-earners were found to be among them. Some 44% of dual wage-earner families in 1981 are among those with some discretionary income, which is income in excess of the standard of

living of a comfortably well-off household. But this fact comes at the end of a decade in which a notable trend had been for more affluent families to adopt the dual wage-earning mode, which on general grounds was felt likely to advance their material standard of living.

There are other ways of increasing family income through the sale of labour-power which would need to be considered in a more complete study of the phenomenon of the dual wage-earning mode. These other alternatives raise related questions for the concept of the value of labour-power since similar divergences are introduced by them between family income and the wage as price of a unit of labour-power. These are workers on long schedules, which ^{are} conventionally defined as working more than 41 hours in a week, and multiple jobholders, who may or may not work long schedules. About a third of all employed men and 1 in 7 women in the work force work longer than the standard work week of 40 hours.⁴² Most of them work the extra hours at their one job, of whom less than half receive over-time pay; rather few work such longer hours because of multiple jobholding (in 1980, 4.2% of the workforce for men; 2.0% for women).⁴³ In contrast to the trend towards dual wage-earning, there has been a small decline in both phenomena - except among working women, among whom the incidence of multiple job-holding has increased to 3.8%. Like the phenomenon of dual wage-earning, multiple jobholding is somewhat ambiguous relative to the value of labour-power conception of living standards. Those who are most likely to engage in the

⁴²D. E. Taylor and E. S. Sekscenski, 'Workers on Long Schedules, Single and Multiple Jobholders', Monthly Labor Review Vol. 105 No. 5 (May 1982), p. 47.

⁴³Ibid., p. 48.

practice are professional and technical workers. This is presumed to be related to the fact that factory and clerical workers, who are the least likely to be multiple jobholders, have less flexible hours and also are more likely to have available the option of overtime work.⁴⁴

Our focus on the change in wage-earning arrangements within the family has so far ignored the fact that the family in the full conventional sense (married couple families) has been steadily declining over the postwar period from being some 80% of households in 1950 to about 60% in 1984 with the expanding categories of single persons and single parent families. An increasing heterogeneity of the social unit within which labour-power is maintained and reproduced further complicates the relation to the individual wage, which provides the means of reproduction. If, for example, the dual wage-earning mode were to become the normal form for the provision of an adequate standard of living, then one would expect the differential between dual- and single-wage families to rise to the limit of women's pay relative to men's. If women moved to a position of wage- and earnings-equality with men, then the implied differential becomes 100%. Without any change towards the women's wage- and earnings-equality, the implied differential would be even greater for the increasing number of single parent women and also married women who are the main support of their families. A 60% wage differential would imply at the limit of the process that the typical level of family income ~~would be~~ 38% (as against 50%) of normal levels for the reproduction of labour-power.

⁴⁴Ibid., p. 51.

PART FOUR

THE SPHERE OF CONSUMPTION

In contrast to the function and total level of individual consumption, Marx hardly discussed its content or developmental tendencies at all. It remains a kind of residuum in the theory, which is left to the realm of pure use-value in the following manner:

"The fact that the worker performs acts of individual consumption in his own interest, and not to please the capitalist, is something entirely irrelevant to the matter. The consumption of food by a beast of burden does not become any less a necessary aspect of the production process because the beast enjoys what it eats. The maintenance and reproduction of the working class remains a necessary condition for the reproduction of capital. But the capitalist may safely leave this to the worker's drives for self-preservation and propagation." (Capital Vol. 1, p. 718)

Nevertheless, the labour's sphere of consumption impinges on two significant areas of the theory of value: the concept of relative surplus value and the realisation of value in distribution. Analysis of the tremendous development of capitalism in this century depends on the interrelation of both these aspects of the theory. The main debates in the 1970s among Marxist political economists regarding the nature of the contemporary postwar crisis in the capitalist accumulation process have focussed on problems in the production of value. Much of the argument has revolved around the proper understanding and the validity of the main tenets of Marx's theory of crisis, such as the 'Law of the Tendency for the Rate of Profit to Fall', which involves the value-theoretic concepts of the organic composition of capital, the rate of exploitation, and the production of absolute and

relative surplus value. Alongside the controversy over the nature of the tendencies towards crisis within a capitalist economy has been the debate over the role of the state as manager of crisis, or in value-theory terms, the mobiliser of the 'countertendencies'. Similarly, another strand of discussion has been over changes within the sphere of production: the transformation of the labour process and the restructuring of capital more generally to increase surplus-value and the attempts of the state to intervene in the process.

Two recent analyses by M. Aglietta (1979) and J. O'Connor (1984) have given more weight to the contradictory aspects of mass consumption as a key transformation in the capitalist accumulation process in the twentieth century. Both open new theoretical ground by directly addressing the phenomenon of 'affluence' or the general rise in living standards under developed forms of capitalism, which has long posed an empirical challenge to Marxist perspectives on capitalist development, even without the question of Marx's supposed 'immiseration thesis'.

M. Aglietta's work is of particular interest here because of his use of the wage-relation as the vantage point for the analysis of the historical development of capitalism up to the crisis in the 1970s: "The theory [of capitalist regulation] is a theory of the development of the wage relation."¹ This perspective is carried even further by J. O'Connor (1984), who presents a view of the crisis in terms of the contradictory functions of the wage-relation in the accumulation process. The use of the wage relation as the framework of the discussion of the political and economic development of capitalism has

¹M. Aglietta, A Theory of Capitalist Regulation (London: New Left Books, 1979), p. 72.

the advantage of holding both capital and labour together in the foreground of the analysis. As a direct embodiment of the class relation, it is a principal locus of tension and struggle within the accumulation process. Conversely, the vicissitudes of the accumulation process can be seen as a manifestation of a dual struggle mediated by the wage-relation. On the one hand, the wage-relation joins capital and labour in a struggle within production over the production of surplus value; on the other hand, as the mode of the social reproduction of labour, the wage-relation joins capital and labour in a struggle over the allocation of the final product between consumption and accumulation.

The Regulation Theory Approach

The theory of regulation aims to describe the changing forms of capital's overall accumulation process as a historical development. Its ambitious scope is easily seen in the way Aglietta integrates a detailed value analysis of the accumulation process with a more concrete analysis of changes in the labour process and consumption. The two sides of the analysis give rise to the two different characterisations Aglietta employs to designate the main historical transformations in the capitalist accumulation process, each constituting an important historical phase. It should be noted that in basing his systematic analysis and periodisation on the wage relation, Aglietta explicitly rejects the standard approach in Marxist analyses which features the concentration and centralisation of capital ('Monopoly Capitalism'), sometimes with the integration of the state ('State Monopoly Capitalism'), as the crucial characteristic of modern

capitalism.²

As set out in Aglietta's A Theory of Capitalist Regulation (1979) and in other writings, the history of capitalist development is interpreted as the extension of the wage relation over the social field and the evolution of structural forms of the accumulation process. The importance of his analysis in the context of our discussion is the connection he has worked out between the Fordist transformation of the labour process (the sphere of production) and the change in the worker's mode of life, specifically their mode of consumption. The specific link he posits between the spheres of production and consumption constitute a major historical phase of capitalist development.

While Aglietta disclaims the historian's interest in the periodisation problem per se, which he equates with the search for a precise determination of watershed dates, he has, nevertheless, a concept of historical epochs of the capitalist accumulation process based on the evolution of its structural form (an approach reminiscent of the Braudelian school's concepts of the longue durée and the conjoncture). The result is an approach which describes the accumulation process as a complex integration of specific, concrete social elements, e.g. semi-automatic assembly production in the labour process, collective bargaining as a mode of wage determination, socially stratified mass consumption, transactions based on credit, etc., which characterise a particular historical phase of capitalism. The emphasis of Regulation theory is definitely on the evolution of successive structures, whose historical continuity consists in the

²Ibid., p. 20.

transformation or modification of the basic capitalist social relation, the wage relation.

Aglietta analyses the particular, expansive phase of the accumulation process of the postwar period in the advanced capitalist countries as the result of a particularly fruitful linkage between one type of production process (using mass production techniques) and an associated mode of consumption ('Fordist' mode of consumption), which has undermined traditional forms of working class life in favor of the mass-produced commodity form. The resulting dynamism of the accumulation process is explained by him in value terms through an analysis of the effect of these social developments on the theoretically posited field of value relations. The particular combination of constituent elements ('structural forms') which give rise to a distinct pattern or rhythm of accumulation constitutes, in Aglietta's terminology, a 'regime of accumulation'. Regulation theory posits that capitalism manifests distinct historical phases which can be described in these terms, which constitute a particular characteristic mode of the regulation of the accumulation process. Regulation theory, thus, gives a new slant to the old problem of periodisation, whose aim has always been the adequation of Marxist theory to historical changes subsequent to Marx's time.

The historical phases of capitalist development are variously characterised by Aglietta and others of the Regulation school. We will mainly be concerned with the concepts of the 'extensive' and 'intensive' regimes of accumulation,³ which Aglietta defines as two modes of accumulation, which are distinguished by means of Marx's

³Ibid., pp. 79-80.

concepts of the absolute and relative forms of surplus value. The concepts are presented in a somewhat confusing manner, with the consequence that the first lengthy English-language review of Aglietta's work by M. Davis (1978), criticizes him for an overly simple schema when he identifies the 'extensive' regime of accumulation with the production of absolute surplus value and the 'intensive' regime with relative surplus value.⁴ Davis suggests an alternative, which is actually embedded in Aglietta's somewhat convoluted text.⁵ While there is a connection between the two sets of concepts, Aglietta is quite explicit that both regimes are "a form of social transformation that increases relative surplus-value..."⁶ The two structural forms coexist within the accumulation process, and it is the shift in predominance from one to the other which determines the character of the historical phase of the accumulation process.

The regime of accumulation is in each case rooted in the dynamic of relative surplus value, which is dynamic in the exact sense that relative surplus value is by definition an increase in surplus value, rather than a quantity or portion resulting from the division of surplus value, as between different classes of revenue.

My understanding of the predominance of absolute surplus value as the mode of accumulation in the extensive regime⁷ is the primacy of

⁴M. Davis, '"Fordism" in Crisis', Review, Vol. 2 No. 2 (Fall 1978): 207-69.

⁵M. Aglietta, op. cit., p. 130.

⁶"...under the stable constraints of the most general norms that define absolute surplus-value)," M. Aglietta, *ibid.*, p. 68. I believe it is easy to misunderstand Aglietta on this point.

⁷*Ibid.*, p. 130.

the extension of the capitalist form of production in the course of the nineteenth century, during which class struggles revolved around the workers' defense of earlier modes of production against mechanisation, the tightening of labour discipline and intensification of the labour process, all aimed at raising the labour time extracted from the workers. Importantly, in relation to the conceptual issue mentioned earlier, this process did not exclude periods of relative surplus value as an aspect of the 'extensive' regime of accumulation. The rapid build-up of heavy industry in the United States at the very end of the nineteenth century, for example, took place concurrently with a rapid rise in productivity in the areas of agriculture and textiles, which had the effect of gradually increasing real wages through the cyclical movements of money wages.⁸

The extensive regime of accumulation, lasting up until World War I in the United States, was succeeded by an intensive regime of accumulation, beginning in the 1920s in the United States, in which mass production techniques provided the basis for the generation of relative surplus value by cheapening the means of livelihood of the workers and thus reducing the value of labour power.

A major difference between the two modes of accumulation is the evolution of a new mode of consumption among the wage-earning class under the intensive regime of accumulation. The integration of consumption into the accumulation process provided the basis for a continuous process of social transformation coupled with the generation of relative surplus value. This double process is interpreted by Aglietta to have had the effect of creating a relative evenness in the

⁸Ibid., pp. 78-9.

accumulation process by comparison with accumulation under the predominantly extensive regime "progressing only in fits and starts".⁹ Employing Marx's division of the sphere of production into two departments, Aglietta attributes unevenness in the accumulation process to an imbalance in the development of Department I's production of means of production relative to that of Department II's production of the means of consumption.

'Fordism' is an alternative designation for the 'intensive regime of accumulation'. The concept of 'Fordism' characterises the historical period of accumulation from the 1920s to the mid-1960s more straightforwardly on the basis of the transformation of labour processes. This took the form of the introduction and diffusion of semi-automated mass production techniques. Although the preceding period, from the 1890s, also involved rapid mechanisation of labour and the tightening up of work organisation ('Taylorism'), the new mode of accumulation involved the transformation of the traditional way of life of the mass of the wage-earning class. The introduction of a mode of consumption geared to continuous generation of relative surplus value is a key transformation from the predominantly extensive to the predominantly intensive regime of accumulation. While it had an initial take-off in the early 1920s, the phenomenon mainly reached the new middle class, the 'salariat', who proved too narrow a basis, in Aglietta's judgment, to sustain the momentum of the accumulation process.¹⁰ Not until the Fordist mode of consumption was extended to include the working class generally, after World War II, did a real

⁹Ibid., p. 79.

¹⁰Ibid., p. 94.

consolidation of the intensive regime of accumulation come into effect, lasting for the next two decades without major interruption.

Writings of the Regulation school appearing in English since the translation of Aglietta's book tend to focus on the onset of the recent prolonged crisis in capitalist accumulation starting in the mid-1960s. Aglietta himself suggests the outlines of a newly emerging regime of accumulation, which he designates 'Neo-Fordist', borrowing a term from C. Palloix (1976). The potentially new mode of accumulation is also based in a transformation of the labour process, whose main features are the automation of production and a new style of work organisation.¹¹ An important aspect of this development is the extension of such techniques to the service and state sectors,¹² which have not previously been amenable to the application of mass production techniques as a means of raising productivity. If the innovations in the labour process prove to be effective in raising the productivity of labour in these sectors, Aglietta sees a possibility of a revitalisation of the accumulation process, resolving the multiple crises of Fordism.

Our discussion will have less to do with Aglietta's third method of characterising the phases of capitalist development: 'competitive' versus 'monopolistic' modes of regulation. The term, 'monopolistic regulation', is employed when Aglietta discusses the historical change in the process of price formation in his analysis of competition between capitals and contrasts it with 'full competition'.¹³ Elsewhere,

¹¹Ibid., p. 117.

¹²Ibid., pp. 167-8.

¹³Ibid., p. 305.

he also uses the designation of 'monopolistic vs competitive form of regulation' proposed by Benassy, et al. (1977).¹⁴ The shifts in terminology from contrasting an 'intensive regime of accumulation' characteristic of the postwar period with the preceding 'extensive regime of accumulation'; then speaking at other points of the 'Fordist' regime, more or less synonymously with the intensive regime,¹⁵ is a question of usage which depends on the aspect of the whole structure of the accumulation process under discussion. In effect, the terminology is a system of multiple synecdoches, each expressing the totality through the identification a crucial part change. While there has been some criticism of the adequacy of ^{this} set of terms for the periodisation they are intended to support, these are the terms generally used in the Regulation framework.¹⁶

As with the concepts of 'extensive' and 'intensive' or 'Fordist' regimes of accumulation, a whole series of structural forms comprise the aspect of the whole structure of the accumulation process which concerns the area of inter-capitalist relations (production, distribution and finance).¹⁷ We forego discussion of these, as the most relevant aspect here is Aglietta's views on the mode of consumption and his particular use of Marx's theory of value as the means of linking developments in the spheres of production and consumption.

¹⁴Cf. discussion of the Regulation 'school' in De Vroey, 'A Regulation Approach Interpretation of Contemporary Crisis', Capital and Class, No. 23 (Summer 1984): 45-66 and compare Aglietta, 'World Capitalism in the 1980s', New Left Review, No. 136 (Nov-Dec, 1982): 5-41.

¹⁵M. Aglietta, *ibid.*, p. 117.

¹⁶M. Davis, *op. cit.*; M. De Vroey, *ibid.*

¹⁷M. Aglietta, *op. cit.*, p. 299.

Accumulation, Relative Surplus Value and the Value of Labour Power

The unevenness of the accumulation process is mainly attributed in Aglietta's account to imbalances in the development of the two main sectors of the capitalist economy: the production of the means of production (Department I) and the production of the consumption goods (Department II), in Marx's usage. The significance of the Fordist integration of production and consumption is that it enabled the overall accumulation process to proceed in a relatively harmonised fashion. The governing principle of the intensive regime of accumulation is described in terms of Marx's concept of relative surplus value: raising the productivity of labour and realising the expanded output through the expanding consumption of the wage-earning class without detriment to surplus value. The ideal functioning of this relationship for capital would allow for a continually rising surplus value (relative surplus value) through continuous cheapening of the value of wage goods, faster than any rise in the wage level, which would thereby guarantee the necessary investment funds for further increases in productivity. The characteristic effect should be the combination of rising real wages with a falling value of labour-power. In Aglietta's words: "When the accumulation of capital finds its content no longer simply in a transformation of the reproduction of the labour process [as in the extensive regime of accumulation], but above all in a transformation of the reproduction of labour-power, a new stage in capitalist development has arrived."¹⁸

¹⁸Ibid., p. 80.

The success of such a regime of accumulation depends on a further condition made possible by the integration of consumption: the growth in tandem of the two departments of production. Department I (means of production) provides the means for mechanising labour and raising productivity for itself and Department II (means of consumption), whose wage goods reduce the value of labour power for both departments. The relative harmonization of these two departments, with expanded output encountering an expanding market, proceeds on the basis of a continuously falling unit labour content in the commodity output. Aglietta derives from this characteristic of the intensive regime of accumulation an index of the 'real social wage cost', which is intended to chart the progress of accumulation.

The derivation of this index from its value theory premises is quite intricate, but was chosen to be a focus of discussion here because of the unique link it provides between a value theoretic discourse and a set of empirical measures, directly relating to the role of the value of labour-power. Before discussing the index and a defect encountered in it, we provide a brief orientation to the elements of value theory which relate the concept of relative surplus value to the accumulation process.¹⁹

Accumulation is represented by Marx's simplest formula for the exchange circuit of capital, as an exchange between money **M** and commodities **C**:

$$M - C - M'$$

which is then expanded to include capital's production process **P**, with means of production **mp** and labour **l**:

¹⁹Which may be skipped over by those already familiar with it.

$$M - \left\{ \begin{matrix} mp \\ 1 \end{matrix} \right. \dots (P) \dots C - M'$$

Value relations parallel the concrete processes of exchange and production represented by the elements of money, the commodity, means of production and labour. Value, in Aglietta's view, exists in a virtual space of measurement, which can only be arrived at through the process of theoretical abstraction, but reflects the real process of homogeneisation in the commodity as an object of exchange equivalence. The commensurability of commodities rests on labour's homogeneity as a fraction of overall social labour (i.e., abstract labour), which is a social relation induced through the process of exchange in the quantitative form of value relations.²⁰ Aglietta's mathematical analogy provides yet another means of explicating the 'abstract labour' approach, actually quite similar in its form of argument to U. Krause's derivation discussed in Part 2.

The process of production transforms the value of constant and variable capital (C and V), bought with the money sum M used to purchase means of production mp and labour-power l, into a higher commodity value on which surplus labour-time S has been spent. Newly created value, V and S, is the labour-time expended in the process of production, which is added to the value of the means of production used up (constant capital C) and transferred into the commodity product. The division of the value added into V and S corresponds to the time it takes labour to produce the equivalent of its own wage.

²⁰Ibid., p. 38.

$$C + V \longrightarrow C + V + S$$

Marx considered two forms of the production of surplus value, absolute and relative surplus value, illustrating them through the division of the working day (t) into two parts equalling the new value created. If t designates the average working day in hours of labour-time, then t_v and t_s correspond to the variable capital (V) and surplus value (S) portions of the new value created.

$$t = t_v + t_s$$

Two approaches to increasing the surplus value portion are possible. An increase in absolute surplus value consists of a direct increase in t_s through a number of means, such as lengthening the working day or increasing the intensity of work performed. Both have the effect of raising surplus labour time, surplus value and total labour time, t_s , S and t .²¹ Reduction of wages is a further possibility, which has the effect of reducing the necessary labour-time t_v and, thereby, raising the surplus portion t_s . Marx considered this only a temporary possibility insofar as it derives from a reduction of wages below the value of labour power.

The same lowering of the wage and corresponding t_v can be brought about in the form of relative surplus value through a general rise in the productivity of labour, which cheapens the workers' means of consumption, thereby reducing the value of labour power and allowing a correspondingly lower wage level. Increasing the portion of

²¹M. Aglietta provides a very neat elaboration on this schema to differentiate the phenomena of lengthening the working day and raising the intensity of labour (*ibid.*, p. 49-51). M. Davis raises a curious categorical quibble as to whether the changes in the intensity of labour are truly a case of absolute rather than relative surplus value (M. Davis, 1978: 261-5).

surplus labour-time t_s and surplus value S in this way does not affect the length of the working day t or the total new value created $V + S$.

As the progressive development of the productive forces under capitalism to higher levels of social productivity depends on placing more powerful (and costly) means of production in the hands of the worker, Marx expected the process would result in a rise in what he called the 'organic composition of capital' (C/V), which provided the basis in turn for his 'law of the tendency for the rate of profit to fall'.

$$\frac{S/V}{C/V + 1}$$

This is reflected in a rise in C/V , with or without the displacement of labour (V), and a corresponding decline in the rate of profit, assuming the rate of exploitation (S/V) remained constant. Relative surplus-value constitutes an important countertendency to this process. Marx mentioned, but did not sufficiently consider the fact that the same possibility of a general rise in the productivity of labour which could bring about a reduction in V and a rise in the rate of exploitation could also reduce the value of the means of production.

Both effects are significant in Aglietta's theory of regulation and may be distinguished by means of Marx's famous reproduction schema, which provides the basis for representing the dynamic core of Aglietta's 'intensive regime of accumulation'. The reproduction schema can be introduced by dividing the global formula, $C+V+S$, into two subformulas for the capitals which produce means of production (Department I) and those which produce means of consumption (Department II).

$$\text{Dept. I: } C_I + V_I \longrightarrow C_I + V_I + S_I$$

$$\text{Dept. II: } C_{II} + V_{II} \longrightarrow C_{II} + V_{II} + S_{II}$$

Relative surplus value provides more than a powerful lever for increasing surplus value, which is one aspect of Aglietta's intensive regime of accumulation. It also provides the basis for a relative harmonization of the two departments because Department II's capacity to adopt the more productive Fordist methods of production, with new means of production generated in Department I, depend on the possibility of selling the resultant expanded output. Realisation of the product is facilitated by lowering the unit value of that output, which has the return benefit to both departments of lowering the value of labour-power, V_I and V_{II} . Similarly, increasing the productivity of labour and/or lowering the value of labour-power can have the knock-on effect of reducing the value of the elements of the constant capital C_I and C_{II} for both departments. A successful suppression of the tendency for the rise in the organic composition of capital means, in turn, that the general rate of profit is maintained or increased, although this is not the only way in which a reduction in the constant capital portion can be achieved.²²

The profitability of this process provides both the motive and the surplus value means for continual renewal of the process in a self-sustaining dynamic of accumulation on an expanding scale. The main

²²M. Aglietta, *ibid.*, presents an extensive analysis of the interplay between the devalorising effect of technological development on already existing capital (obsolescence) (pp. 103-4) and the inflationary effect of attempts to preserve already invested values through schemes of accelerated depreciation (p. 110, 366-70).

burden on the realisation side is the need for a continually expanding market for the increased mass of use-values (as against their value), which implies a considerable material transformation of the mode of life in the sphere of consumption within the constraint of preserving the social relations of production.

Since the whole structure of the accumulation process rests on an implicit coordination of the two types of capital, the intensive regime of accumulation encounters its limit in the contingent form of a faltering technological development or a saturation of the mass market. The dynamic structure of the accumulation process can unravel on all fronts, turning the 'virtuous circle' into a 'vicious circle' of uncertainty and instability, such as Aglietta reckons to have occurred from the mid-1960s.²³ Even a slowing of the rise, not to speak of an actual decline, in the productivity of labour, accompanied by a continuing rise in money wage levels (or other social costs of the reproduction of labour-power), will exert a 'scissors effect' on surplus value, which then impairs capital's capacity to renew the cycle through the renovation of the means of production to yet higher levels of productivity.

²³M. Aglietta, 'World Capitalism', op. cit.

Aglietta's Index of the 'Real Social Wage Cost'

M. Aglietta suggests a possibility of observing the long-run rise in the rate of surplus value, which he associates with the intensive regime of accumulation. To this end, he constructs an index of the 'real social wage cost' of production. It is intended as no more than an indicator of the trend of surplus-value, and not a measure. His statistical indicator relates the movement of average real hourly wages to the movement of average hourly productivity (both in index form). It is, thus, a ratio of two indices, intended to display their relative movement. Since the validity of empirical applications of Marxist theory are always a contentious matter, and Aglietta's index, while not crucial to his argument, seems on the face of it quite promising, it is well worthwhile reviewing the argument by which he establishes the link to his theoretical objective. On close inspection we find that his rather intricate argument carries a defect, which forces a slightly different interpretation of the link between theory and measurement.

M. Aglietta says little of what he takes the 'index of real social wage cost' to mean beyond its name.²⁴ It is a complex variable whose significance derives from its quantitatively inverse relation to the rate of surplus value, a theoretical term not directly measurable. The principal equation through which Aglietta relates the index to the theoretical ground is reproduced here with his notation:

$$\frac{S_t/VP_t}{S_o/VP_o} = C_{s,o}^t * \frac{P_{c,o}^t}{P_o^t} \quad (1)$$

²⁴Ibid., p. 89.

S_t/VP_t represents the share of wages (Fr: 'salaires') in total value added, or total revenue, at time t , while S_0/VP_0 represents the same variables at a reference time, time 0. The two variables 'S' and 'VP' are monetary expressions, that is, they are expressed as monetary quantities. The ratio of the wage shares at time t and time 0 expresses the evolution of the share of wages over time.

The index of real social wage cost is the expression $C_{s,o}^t$. It is composed of the ratio of an index of average real hourly wages ($S_{r,o}^t$) and an index of average hourly productivity (π_o^t):

$$C_{s,o}^t = \frac{S_{r,o}^t}{\pi_o^t} \quad (2)$$

Applying his index to data on real hourly wages and value added per man-hour provided by the U.S. Bureau of Labor Statistics for the period 1900-1972 gives the result depicted in his Diagram 1.²⁵

The remaining two expressions of the main equation (Eq. 1) are price indices: $P_{c,o}^t$ is a price index for private consumption and P_o^t is a price index for the general price level.

The indexes employed in the equations and in the accompanying argument are listed and defined for convenience of reference:

- $S_{r,o}^t$ = index of average real hourly wages
- π_o^t = index of average hourly productivity
- P_o^t = price index for value added
- $P_{c,o}^t$ = price index for private consumption
- $C_{s,o}^t = S_{r,o}^t / \pi_o^t$ = index of real social wage cost

²⁵Ibid., p. 91. Not included as it does not reproduce well.

We now examine the rationale for Aglietta's use of this index by reviewing his method of arriving at it. After a short discussion of the problem of constructing statistical indicators in conjunction with Marxist value theory, Aglietta begins by examining the change in the share of wages in value added over all of production (referring to monetary values, not the labour content value theory refers to). The change over time in the share of wages is expressed in the form:

$$\frac{S_t/VP_t}{S_o/VP_o}$$

In value terms, the share of wages in value added is a ratio of the monetary form of the variable capital employed to the monetary form of the total abstract labour performed:

$$\frac{S_t/VP_t}{S_o/VP_o} = \frac{(\bar{m}_t * V_t) / (m_t * VA_t)}{(\bar{m}_o * V_o) / (m_o * VA_o)} \quad (3)$$

The crucial monetary terms \bar{m} and m and their relation to the value terms V and VA is quite complex.²⁶ M. Aglietta explains in this way:

"When all the commodities in the system of values whose production flows from the division of the overall labour of society VA have completed their metamorphoses, the abstract labour VA has been realized in money. The amount in money VP , as thus defined, is the total income of society. This is therefore the exchange-value of the net product created by social labour, known as value added. If the abstract labour is completely realized in the exchange, and if we call the monetary expression of the working-hour m , then the total income must satisfy the equation:" (M. Aglietta, 1979, p. 43)²⁷

²⁶Ibid., pp. 39-45, 46, 48-9.

²⁷Methodologically, M. Aglietta's work represents the 'abstract labour' approach to the theory of value of the Grenoble school discussed earlier. We see it here in action so to speak.

$$m = \frac{VP}{VA} \quad (3i)$$

The total abstract labour, VA , represents in the value field the value which reproduces wage-labour, or the value of labour-power, V , plus the surplus-value generated by labour beyond this, SV :

$$VA = V + SV \quad (3ii)$$

Now, just as a 'monetary expression of the working hour' is established through a process of exchange between the total labour of production and the total monetary value of the resultant commodities, a similar relation exists between value and its monetary expression for the commodity labour-power (\bar{m}).²⁸ The reason for the separation between the two valorisation processes is explained thus by Aglietta:

"... the wage contract does not form part of the realization of value in general commodity circulation. It is only the expenditures of the wage-earners that form part of this realization. . . . Since it does not enter into relationships of equivalence that determine the present monetary expression of the working hour (m), the conversion of the value of labour-power into wages depends on a quantity (\bar{m}) which is a function of the past magnitudes of this variable." (M. Aglietta, 1979, p. 48)

The relation between the wage S and the variable capital employed V , which is also the value of labour-power, as mediated by this \bar{m} term is shown in Eq. (3iii).

$$S = \bar{m} * V \quad (3iii)$$

²⁸This idea is developed by M. Aglietta more fully in his third chapter, pp. 198-208.

Returning now to Eq. (3), the value terms on the right may be rearranged:

$$\frac{S_t/VP_t}{S_o/VP_o} = \frac{(\bar{m}_t/m_t) * (V_t/VA_t)}{(\bar{m}_o/m_o) * (V_o/VA_o)}$$

Taking the usual expression in value terms for the rate of exploitation, $e = SV/V$, and decomposing the total abstract labour performed as in Eq. (3ii), then wage share Eq. (3) may be further rewritten with the aid of the following equivalent expressions:

$$\frac{V}{VA} = \frac{V}{V + SV} = \frac{1}{1 + e}$$

to obtain:

$$\frac{S_t/VP_t}{S_o/VP_o} = \frac{(\bar{m}_t/m_t)}{(\bar{m}_o/m_o)} * \frac{1 + e_o}{1 + e_t} \quad (4)$$

Aglietta provides the following interpretation. The change in the share of wages in value added "appears as the product of two indices. One of these is the inverse of the index of the rate of surplus-value. The other expresses the share of wages at a constant rate of surplus-value."²⁹

The theoretical expression (appearing in value terms) underpins the empirical decomposition of the change in wage share into the indices of prices, wages and productivity shown in Eq. (1). Aglietta's derivation of the term to term relation between the theoretical and empirical Eqs. (1) and (4) is quite sketchy. A more explicit derivation is presented here because Aglietta's simplifying assumptions were

²⁹Ibid., p. 88.

found, on close examination, to misstate the connection between his empirical construct, 'the real social wage cost', and its theoretical object, the rate of surplus value. In his derivation, a direct association is established between the real social wage cost index, $C_{s,o}^t$, in Eq. (1) and the change in the rate of surplus value expressed in Eq. (4), such that a fall in the former corresponds to a rise in the rate of surplus value.

The disturbing step in Aglietta's derivation is his simplifying assumption that the terms m and \bar{m} in Eq. (4), which relate value to their monetary expression, can be represented by the ordinary price indices of the general price level and private consumption for an assumed constant rate of surplus value, e , as implied by the form of Eq. (4), which factors out change in this element and expresses it in a separate term. By Aglietta's assumption the monetary expressions m and \bar{m} , decomposed into nominal and real (i.e. quantity) aspects, are directly representable by letting ordinary price indices represent the nominal, or pure price, aspect and merging the remaining 'real' (i.e. quantity) aspect with the expression in Eq. (4) representing the change in the rate of surplus value.

Thus, in Aglietta's derivation, the expression in m and \bar{m} has the following relation to the chosen statistical indicators. From the reordering of terms:

$$\frac{\bar{m}_t/m_t}{\bar{m}_o/m_o} = \frac{\bar{m}_t/\bar{m}_o}{m_t/m_o}$$

Aglietta obtains:

$$m_t/m_o = P_o^t * \pi_o^t \quad (4i)$$

This is interpreted as: A change in the index of net monetary value added per hour of productive labour, holding productivity constant (justified by the assumption that a constant rate of surplus value implies a constant social productivity of labour), is indicated by the general price level alone. The change in the wage expression is similarly decomposed into a nominal and a real aspect, and it is assumed that a constant rate of surplus value, e , implies that the change in the wage expression is purely nominal and roughly representable by an index of consumer prices alone, $P_{c,o}^t$:

$$\bar{m}_t / \bar{m}_o = P_{c,o}^t * S_{r,o}^t \quad (4ii)$$

By combining these two translations of the terms in m and \bar{m} in Eqs. (4i) and (4ii) and referring to Eq. (4), we find Aglietta, in effect, claiming a simple and direct reflection of the change in the rate of surplus value in the leftover real indices.

$$\frac{S_t / VP_t}{S_o / VP_o} = \frac{P_{c,o}^t}{P_o^t} * \frac{S_{r,o}^t}{\pi_o^t} \quad (4iii)$$

where $\frac{\bar{m}_t / \bar{m}_o}{m_t / m_o} = \frac{P_{c,o}^t}{P_o^t}$ and $\frac{S_{r,o}^t}{\pi_o^t}$ corresponds to $\frac{1 + e_o}{1 + e_t}$.

Substantively, Aglietta's index of change in the rate of surplus value employing the ratio of these two real indices, designated $C_{s,o}^t$, seems quite a reasonable idea. A fall in the value of this ratio corresponds to a rise in workers' consumption (their real wage) which is less than the rise in their productivity, which implies a growth in the surplus appropriated from their labour.

Where the derivation, connecting Aglietta's 'real social wage cost' index with its theoretical object (surplus value), seems to go astray is in the strange assumption that a constant rate of surplus

value implies a constant social productivity. This is the assumption which allows him, after first decomposing the monetary expression term (in m and \bar{m}) into nominal and real price components, to separately represent its nominal component and associating with the real components a statistical indicator for the rate of surplus value. Reflecting back on his discussion of relative surplus-value, while it makes sense to say that an absence of change in the productivity of labour implies ceteris paribus a lack of change in the rate of surplus value, it would not make sense to assume the converse is equally true. The rate of surplus of value could change for other reasons, e.g. an intensification of labour.

Another avenue towards the same end becomes evident on closer scrutiny of Aglietta's derivation. It will reveal that his C-index of the real social wage cost does not simply and directly reflect the inverse of the change in the rate of surplus value, but can still be related to it. Consequently, an observed decline in the level of the C-index, such as Aglietta's Diagram 1 [p. 91] displays, may still be taken as a rough indication of the existence of the course of the intensive regime of accumulation. Whether associated with it is a rise in the rate of surplus value (interpreted as the effect of intensive accumulation) will depend on an intervening condition, which, to anticipate the argument, consists of a rise in productivity in the wage good sector relative to a general rise in the productivity of labour. Whether or not this derivation yields a better, more precise statistical indicator will depend on the availability of the appropriate data, but hopefully its derivation gives a clearer view of the import of Aglietta's construction.

A slight rearrangement of terms in Eq. (4) will give us the equation we wish to work with:

$$\frac{S_t/VP_t}{S_o/VP_o} = \frac{(\bar{m}_t/\bar{m}_o)}{(m_t/m_o)} * \frac{1 + e_o}{1 + e_t} \quad (5)$$

Eq. (5) still represents the change in the share of wages in value added, but with a more explicit relation to the statistical indicators of Eqs. (1) and (2) than Aglietta gives.

We first decompose the total revenue element of the term expressed in m and \bar{m} into price and quantity aspects by P and Q for VP in Eq. (3i):

$$m = \frac{VP}{VA} = \frac{PQ}{VA}$$

Change in the m -term between time t and time o is represented in Aglietta's manner as follows:

$$\frac{m_t}{m_o} = \frac{VP_t/VA_t}{VP_o/VA_o} = \frac{P_t Q_t / VA_t}{P_o Q_o / VA_o}$$

Now, in order to make more explicit the effect of Aglietta's matching procedure between theoretical terms and statistical indexes, we separate the nominal and real aspects of the price x quantity term by means of hypothetical constant price (\bar{P}) and constant quantity (\bar{Q}) terms:

$$\frac{m_t}{m_o} = \frac{P_t \bar{Q} * \bar{P} Q_t / VA_t}{P_o \bar{Q} * \bar{P} Q_o / VA_o} \quad (5i)$$

Eq. (5i) should now be compared with Eq. (4i). The difference from Aglietta's procedure is that the real, or quantity, term is not suppressed at this stage.

The same treatment is applied to the \bar{m} -term in Eq. (3iii), with the difference that we treat the S term, not as the wage or income of labour, but as expenditure on the commodities which enter into the reproduction of labour power. For this S term we substitute the prices (P_s) and quantities (Q_s) of commodities purchased. Thus, for \bar{m} defined as in Eq. (3iii), we obtain:

$$\frac{\bar{m}_t}{\bar{m}_o} = \frac{S_t/V_t}{S_o/V_o} = \frac{P_{st}Q_{st}/V_t}{P_{so}Q_{so}/V_o}$$

Again, separating the nominal and real elements of the price x quantity term by means of hypothetical constant price and constant quantity terms:

$$\frac{\bar{m}_t}{\bar{m}_o} = \frac{P_{st}\bar{Q}_s * P_s Q_{st}/V_t}{P_{so}\bar{Q}_s * P_s Q_{so}/V_o} \quad (5ii)$$

Equation (5ii) compares to Aglietta's Eq. (4ii), noting his use of a consumer price index as a proxy indicator for a purely nominal change in the wage.

When the substitutions indicated by Eqs. (5i) and (5ii) are made in Eq. (5) and Aglietta's matching procedure is followed, we will find that the ratios of the price terms in Eqs. (5i) and (5ii) correspond conceptually to the two price indices in Eqs. (4i) and (4ii). That is to say, Eq. (5) may be rewritten as:

$$\frac{S_t/VP_t}{S_o/VP_o} = \frac{\frac{P_{st}\bar{Q}_s}{P_{so}\bar{Q}_s} * \frac{P_s Q_{st}/V_t}{P_s Q_{so}/V_o}}{\frac{P_t\bar{Q}}{P_o\bar{Q}} * \frac{PQ_t/VA_t}{PQ_o/VA_o}} * \frac{1 + e_o}{1 + e_t} \quad (5iii)$$

When Eq. (5iii) is compared with Eq. (4iii) after Aglietta's statistical indicators have been incorporated, we find that ^{the} other two real (quantity) indexes correspond to a more complex composite term than in Aglietta's derivation.

$$\frac{S_t/VP_t}{S_o/VP_o} = \frac{P_{c,o}^t}{P_o^t} * \frac{S_{r,o}^t}{\pi_o^t}$$

A relationship to the rate of surplus value does exist even if it is not as simple and direct as Aglietta intended for his C-index of real social wage cost. While the decline in the C-index shown in Aglietta's Diagram 1 [page 91] still demonstrates in a rough way the intended effect of the regime of intensive accumulation, as an indication of a rise in the rate of surplus value, it is contingent on an intervening condition: a rise in the productivity of the wage good sector relative to a general rise in the productivity of labour. Apart from any practical value of this more precise specification, it should give a clearer insight into the import of Aglietta's construction. To isolate the intervening condition, we modify the derivation of Aglietta's index as follows.

$$C_{s,o}^t = \frac{S_{r,o}^t}{\pi_o^t} = \frac{\frac{P_s Q_{st}/V_t}{P_s Q_{so}/V_o}}{\frac{PQ_t/VA_t}{PQ_o/VA_o}} * \frac{1 + e_o}{1 + e_t} \quad (6)$$

Recalling from Eq. (4) that:

$$\frac{1 + e_o}{1 + e_t} = \frac{V_t/VA_t}{V_o/VA_o}$$

and substituting back into this the price and quantity terms introduced before:

$$\begin{aligned}
 \frac{\frac{P_s Q_{st}/V_t}{P_s Q_{so}/V_o}}{\frac{PQ_t/VA_t}{PQ_o/VA_o}} * \frac{1 + e_o}{1 + e_t} &= \frac{\frac{P_s Q_{st}/V_t}{P_s Q_{so}/V_o}}{\frac{PQ_t/VA_t}{PQ_o/VA_o}} * \frac{V_t/VA_t}{V_o/VA_o} \\
 &= \frac{\frac{P_s Q_{st}/VA_t}{P_s Q_{so}/VA_o}}{\frac{PQ_t/VA_t}{PQ_o/VA_o}} \quad (6i)
 \end{aligned}$$

In Eq. (6i) the rate of surplus value term has been incorporated into the numerator to show how the resultant form of the numerator provides a good equivalent to the numerator ($S^t_{r,o}$) in Aglietta's C-index of average real hourly wages. To visualise this only consider that his real hourly wage index relates a real wage figure to hours worked (i.e., value created) indexed over time. The numerator in Eq. (6i) relates, in indexed form, the total commodity equivalent of the wage received by labour ($P_s Q_s$) to total abstract labour performed (VA) for all commodities. While it is rather awkward to describe verbally what is being done here, perhaps it can help to clarify the procedure.

Rather than following Eq. (6i), which approximates Aglietta's procedure, we separate out the rate of surplus value term as in Eq. (6). This has the effect of converting the numerator into a relation, in indexed form, of the commodity equivalent of the wage received ($P_s Q_s$) to total variable capital (V), i.e. the value paid by capital for the total labour power employed. Since the total labour

power is reproduced through the workers' consumption of the commodities represented by Q_s , then V can also be arrived at as that portion (V) of total abstract labour expended in production which is embodied in the set of commodities (Q_s) whose consumption reproduces labour power and constitutes its value (also V). This V , referring to labour expended in production, is the labour performed in Department II of Marx's reproduction schema - not the total labour performed there insofar as some part of the consumable product of Department II goes to other classes. Nevertheless, the composite term we are examining can be roughly interpreted as the relative change in productivity between the production of the consumption basket of the workers and production overall.

We may now draw out the condition under which a fall in Aglietta's index of real social wage cost (C-index less than 1.0) implies a rise in the rate of surplus value. Rearranging terms in Eq. (6):

$$\frac{1 + e_o}{1 + e_t} = \frac{\frac{PQ_t/VA_t}{PQ_o/VA_o}}{\frac{P_s Q_{st}/V_t}{P_s Q_{so}/V_o}} * C_{s,o}^t \quad (7)$$

A rise in the rate of surplus value ($1 + e_o/1 + e_t$ less than 1.0) will correspond to the index $C_{s,o}^t < 1.0$ on the following condition concerning the change in productivity:

$$\frac{\frac{PQ_t/VA_t}{PQ_o/VA_o}}{\frac{P_s Q_{st}/V_t}{P_s Q_{so}/V_o}} < \frac{1}{C_{s,o}^t}$$

This may be interpreted as saying the condition is satisfied generally when the rise in productivity of the wage good sector is greater than the rise in productivity as a whole, but it can also be somewhat less if their ratio is less than $1/C_{s,o}^t$. To the extent that the rise in the two productivities even up over time (i.e., one figure for the change in productivity applies to both), then a fall in the real social wage cost ($C_{s,o}^t < 1.0$) would directly indicate a rise in surplus value ($e_t/e_o > 1.0$) as Aglietta proposed.

Alternatively, we could construct a modified index along similar lines which would directly indicate a rise or fall in the rate of surplus value. Drawing upon Eq. (6i):

$$\frac{\frac{P_{sQ_{st}}/V_t}{P_{sQ_{so}}/V_o}}{\frac{PQ_t/VA_t}{PQ_o/VA_o}} * \frac{1 + e_o}{1 + e_t} = \frac{\frac{P_{sQ_{st}}/VA_t}{P_{sQ_{so}}/VA_o}}{\frac{PQ_t/VA_t}{PQ_o/VA_o}}$$

The surplus value term in the middle can be expressed as:

$$\frac{1 + e_o}{1 + e_t} = \frac{\frac{PQ_t/VA_t}{PQ_o/VA_o}}{\frac{P_{sQ_{st}}/V_t}{P_{sQ_{so}}/V_o}} * \frac{\frac{P_{sQ_{st}}/VA_t}{P_{sQ_{so}}/VA_o}}{\frac{PQ_t/VA_t}{PQ_o/VA_o}} \quad (8)$$

$$\frac{1 + e_o}{1 + e_t} = \frac{\frac{P_{sQ_{st}}/VA_t}{P_{sQ_{so}}/VA_o}}{\frac{P_{sQ_{st}}/V_t}{P_{sQ_{so}}/V_o}}$$

Eq. (8) can be interpreted as indicating a rise in the rate of surplus value when the index of the average real hourly wage corresponding to the numerator (see comment on Eq. (6i)) is less than the appropriate index for the change in productivity in the wage good sector corresponding to the denominator:

$$\frac{1 + e_o}{1 + e_t} = \frac{S_{r,o}^t}{\pi_{s,o}^t} \quad (8i)$$

where $\pi_{s,o}^t$ is defined as an index of the change in productivity in the wage good sector.

To summarize: A close scrutiny of Aglietta's 'real social wage cost index' as an indicator of change in the rate of surplus value and of the existence of an intensive regime of accumulation (Eqs. 1, 2 and 4iii) revealed certain anomalies in his derivation. The deficiency in his derivation was revealed through the comparison of Eqs. (5iii) and (4iii). We then determined more exactly the significance of Aglietta's C-index (Eqs. 6 and 7). This led us to derive a possible alternative indicator for a change in the rate of surplus value (Eqs. 8 and 8i), whose empirical value will depend on the existence of an appropriate productivity index for the wage good sector as called for in Eq. (8i).

In lieu of this modified index, for which we are not yet able to provide the proper data, we have extended Aglietta's C-index - to provide a continuation of the story as it were. We find that the picture provided for the postwar period is somewhat different than that indicated by Aglietta with the same or comparable data. His Diagram 1 [p. 91] shows a gradual postwar decline in the index of real social wage cost up to 1966, followed by a flattening out of the trend up to the cutoff at 1972. Following Aglietta's reading of the graph as

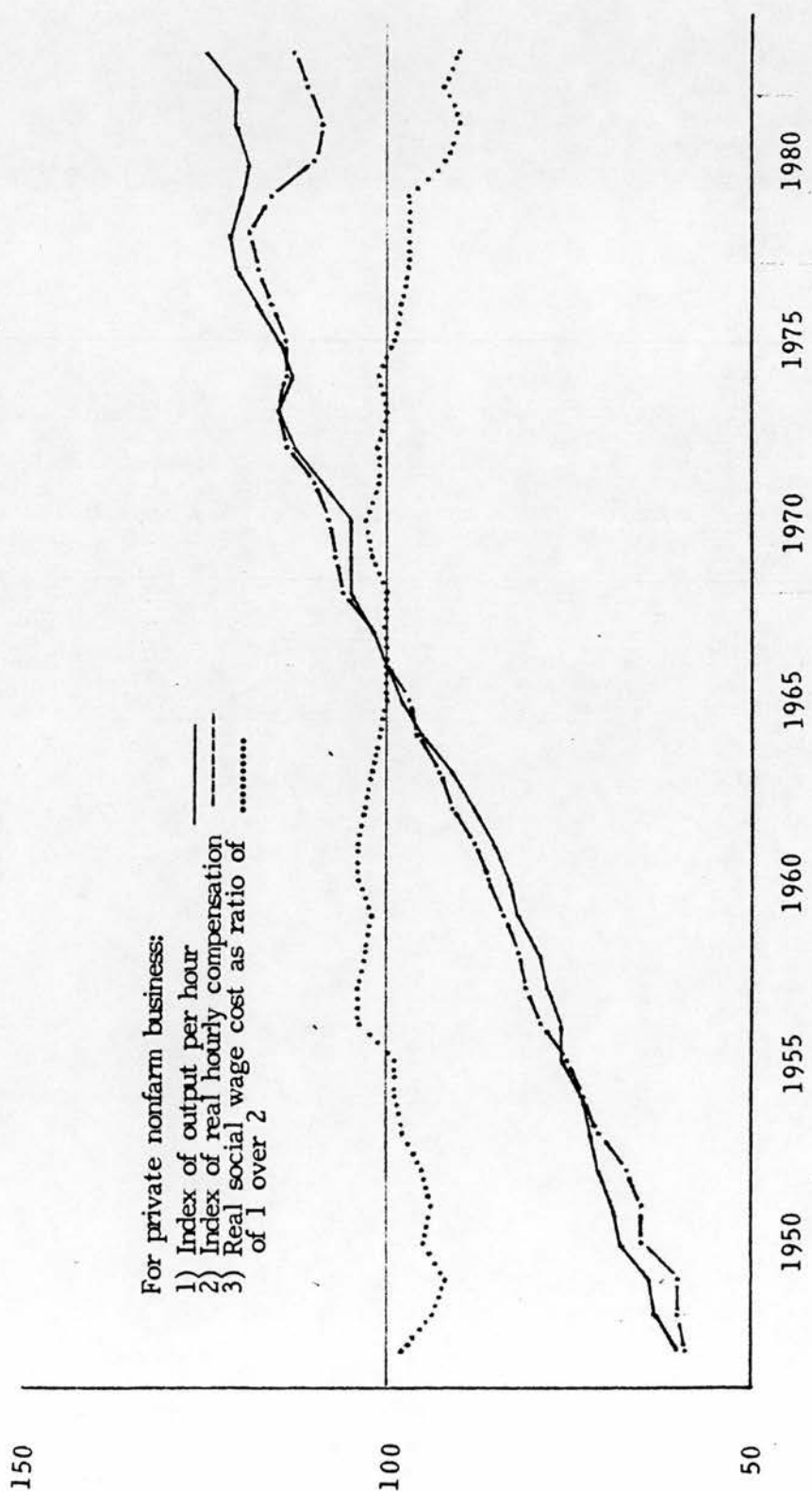
indicating only the movement, and not the level, of surplus value, the indicated result is a long-period of rising surplus value followed by its stagnation.³⁰ We show in Figure 1, with 1966 as the reference year, a somewhat different movement of his index. A cyclical oscillation around a flat trend until 1974-75, with a flattening out from the mid-1960s to the early 1970s (which does correspond to Aglietta's reading of the onset of a period of stagnation), is followed by the longest stretch in the postwar period of continuous decline in the relation between the purchasing power of hourly wages and output productivity. Aglietta has not sufficiently specified what data his diagram draws on, other than a reference to the U.S. Department of Commerce and the Bureau of Labor Statistics, to determine why our results should differ from his.

Nominal Wages, Real Wages and the Value of Labour Power:

Despite our finding that Aglietta's statistical C-index of real social wage cost could not be related directly to the change in the rate of surplus value because the correspondence between the empirical and value terms were more complicated (cf. Eq. 6), Aglietta's essential point remains. Rising wages and rising (or undiminished) surplus value can proceed together in the accumulation process so long as productivity is also rising quickly enough.

³⁰In the original diagram, the two component indices - 'value added per man-hour' and 'real hourly wages' - are plotted over the long period from 1900 to 1972 with 1929 selected as the reference year. The index of the 'real social wage cost', derived as the ratio of the two indices, is plotted over the same time span. It reveals a pattern of oscillation without any trend from about 1900 to 1920, a gradual decline through the 1920s, more unevenness in the Great Depression and the Second World War, and then a long-period of gradual decline in the postwar period.

Figure 1. M. Aglietta's Index of Real Social
Wage Cost, U.S., 1947-1983 (1966=100)



[Source: Handbook of Labor Statistics, Table 92, indices for output per hour and real hourly compensation for private nonfarm business.]

This relationship between productivity and surplus value provides the basis for the intensive regime of accumulation, of which there are many more facets than we can summarise here. Our primary interest is in his notion of the integration of consumption and the accumulation process. Aglietta discerns a general indication of the change from the extensive to the intensive regime of accumulation, and the associated transformation in the sphere of consumption, in the historical evolution of three variables: nominal wages, real wages and prices. The earlier pattern, before the Second World War, consisted of sharp rises and falls in nominal wages and employment level in accordance with the uneven rhythm of accumulation. This pattern was shown most clearly in the long-run series developed by E. H. Phelps Brown and M. H. Browne in the period from 1860 to 1914. Thereafter the sharp drops in the nominal wage became less marked until the mid-1920s, when a major fall in nominal wages is out of synchrony with the business cycle.³¹

These cyclical turns are interpreted as manifesting the unevenness of the accumulation process in the period before the First World War, during which heavy industry was built up in the U.S. The periodic downturns represented crises in the accumulation process, which were necessary for the restoration of profitable conditions for accumulation through, among other things, driving down of wages.

The parallel movement of prices and wages in this earlier phase of the accumulation process implied that the real wage was relatively unaffected (manifesting the cycles in a dampened form). While the relative immunity of the real wage would seem to imply stability in the living standard of wage-earners - in fact, the real wage gradually rose

³¹M. Aglietta, op. cit., p. 201. Data from E. H. Phelps Brown and M. H. Browne, A Century of Pay (London, 1968).

through the economic cycles - Aglietta dispels the illusion by recalling that sharp rises in the rate of unemployment accompanied the contractive phases. Working hours among the employed would also have fallen in these periods. Consequently, from the point of view of the reproduction of labour power as a whole, the regime of extensive accumulation, with its instability of the nominal wage and employment, meant great hardship and fluctuations in living standards for the mass of wage-earners.

By contrast, the intensive regime of accumulation, whose onset is dated to the early 1920s by Aglietta, but was subject to a long interruption during the Depression of the 1930s, has completely transformed the relation between the reproduction of labour-power and the capitalist accumulation process. Now the real wage tracks the ups and downs of the accumulation process rather than nominal wages. In this altered pattern, diminutions in the rate of technological change and productivity improvement result in general price rises shooting ahead of the continual rise in nominal wages. The price system effects a redistribution between profit and wage shares through an inflationary erosion of monetary values, rather than through catastrophic falls in wage rates and employment - which are much more disruptive for the realisation aspect, i.e. the markets for the mass-produced goods. Thus, inflation is an essential aspect of the intensive regime of accumulation, which modulates the cost of production (the 'real social wage cost') in accordance with the requirements of accumulation.³²

Thus schematized, Aglietta's analysis is made to appear excessively functionalist and naturally provokes the question of what

³²M. Aglietta, *ibid.*, p. 204.

agency or structure guarantees the correctness of the adjustment. In his analysis, the effects, which may or may not be adequate to the requirements of the accumulation process, are reflections of the behaviour of the underlying structural forms constituting the regime of accumulation. The downward inflexibility of the nominal wage, for example, is the result of the practice of collective bargaining, which Aglietta regards as the structural form of the wage-determination process in the intensive regime of accumulation. It is actually a compromise, which has had the effect of channelling the permanent struggle between capital and labour into an institutionalised, legally codified form of economic practice, whose basis is the security of employment and wage-levels provided for labour and the predictability of labour costs for capital. It has the additional effect of providing market stability for the mass of standardised goods by insulating money wages from the business cycle. At the same time, another structural form of the intensive regime of accumulation, the monopolistic form of competition, has had the effect of enabling capital to pass on their costs of production and protect their profitability when productivity fails to keep pace with the upward movement of wages.³³ Finally, the state has also played a structural role in the regime of accumulation by buffering the loss of income from unemployment, which has the effect of stabilising demand, as well as by maintaining social peace vis à vis sectors of the population who are left out of the rising productivity/ real wage cycle.

³³The endemic inflationary tendency of the postwar intensive regime of accumulation has other roots, discussed by M. Aglietta, in the accelerated depreciation of capital (pp. 102-3 and elsewhere), but we will not go into this here.

The precise outcome of the interrelation of the variables discussed above is not guaranteed to fit the requirements of the accumulation process; in fact, Aglietta sees the crisis in the accumulation process from the mid-1960's as deriving from a diminution in the pace of technological innovation. This has had the effect of combining the continued upward drift (and downward inflexibility) of nominal wages with a slowing down of productivity increases, with a resultant squeeze on the production of surplus value and profitability. Consequently, in the contemporary scene, those structural forms which underlay the intensive regime of accumulation have become barriers to accumulation.

The concept of the value of labour-power encounters an interesting problem in the divergence between nominal and real wages, which we have not distinguished between up to this point. Conventionally understood, the real wage, defined as money wages taking into account price changes, tells us the quantity of consumables which can be purchased by money wages. The important point from the form-conscious value-theoretic point of view is the fact that both terms are monetary expressions. The temptation to immediately refer the concept of the value of labour-power to the real wage when it is distinguished from the nominal wage, on the grounds that the real wage is a better reflection of actual consumption, loses sight of the valorisation aspect. The nominal wage is the actual wage; the real wage is hypothetical and relative. The nominal wage, therefore, always represents the socially-determined monetary equivalent, or expression, of the value of labour-power in the same sense as the commodity price represents the monetary equivalent, or expression, of the value of the commodity. The fact that prices and wages are subject to change leads us, and Aglietta, to posit the process of wage-

determination and price formation as separate valorisation processes. The real wage is an abstraction, which expresses the relative independence of the two processes. This affects our understanding of the role of the concept of the value of labour-power as the mediator of the equivalence between wages and the consumption requirement of the reproduction of labour-power. Aglietta hypothesises a time-lag between the settlement of the wage-contract, on one premise of the relation between value and money (his concept of the 'monetary expression of the working hour'), and the change meanwhile in the level of prices, which establishes a different state of the relation between value and money.³⁴ The result is the discrepancy between a rise in the nominal wage-level and the level of the real wage, or purchasing power of the nominal wage. Both terms, however, are relevant expressions of the value of labour-power.

Under the 'Fordist' mode of consumption, which Aglietta regards as an essential development within the intensive regime of accumulation, stability of employment and wage incomes provide the condition whereby the mass of wage-earners are able to enter into the circle of ownership of such commodities as automobiles, refrigerators, stereos, telephones, etc., whose acquisition often lies beyond the reach of immediate income. These conditions of wage-labour had already begun to be established before the First World War through changes in the wage-relation, as in Henry Ford's experiment of linking mass assembly-line production of inexpensive automobiles with high wage-rates for ordinary workers.

³⁴Ibid., p. 199.

While initial advances were made in this direction through a sharp widening of income inequalities, which created a small class of newly affluent salaried wage-earners, against a background of depressed wages generally, the narrowness of the social base, in Aglietta's view, had a limiting effect on the intensive regime of accumulation.³⁵ Nevertheless, in spite of the exclusion of the mass of ordinary wage-labourers, the early automobile manufacturers were able to rely on the newly emergent sales finance industry to accelerate their turnover by extending the market to the salaried middle class, whose steady incomes enabled ^{them} to carry the financial obligation of paying on an installment basis. This novel form of financial intermediation in the exchange-relation, bypassing the necessity of accumulating savings, virtually unknown before World War I, was so successful that by 1925 three-fourths of the 20 million cars on the road, new and old, were sold in this way.³⁶

We return to the question of credit and consumption at a later point. It is an important aspect of the broadening of the market base for mass-produced goods to the producers themselves. This extension of the credit relation depended on the disengagement of the monetary, or nominal, wage from the fluctuations of the business cycle, a development which came to be more widely realised in the postwar period, under the system of wage-contracts, when the vicissitudes of the business cycle were absorbed by changes in the purchasing power of wages, rather than their monetary levels.³⁷ The theoretical

³⁵Ibid., p. 155.

³⁶I. S. Michelman, Consumer Finance (New York: Frederick Fell, 1966), p. 205.

³⁷Ibid., p. 200.

expression of this characteristic inflexibility of the monetary wage, which Aglietta associates with the evolution of collective bargaining as the form of the wage-determination process under the intensive regime of accumulation, is provided by the concept of the 'nominal reference wage'.³⁸ The notion of a relative constancy or stability in nominal wages underpins not only the possibility of extending the credit relation to the mass of ordinary workers, but more importantly the existence of stable expectations as to standards of living, which Aglietta designates 'social consumption norms'.

The 'Fordist' Mode of Consumption and the Value of Labour-power:

The concept of the 'social consumption norm' expresses both the uniformity of the mode of consumption based on the reproduction of labour-power through the consumption of standardized, massed-produced commodities and its differentiation into status levels. The two processes of the homogeneisation and isolation of the worker are identified as characteristic social consequences of the extension of the wage-relation, which are held to orient the worker towards the adoption of a mode of life involving the continuous acquisition of commodities.³⁹ More than a material dependence is involved in the substitution of commodities for domestically produced use-values; the transformation involves a reorientation away from traditional activities based on ties of obligation and sociability towards an individually autonomous, socially self-sufficient mode of existence based on the

³⁸Ibid., pp. 181-2, 198-200.

³⁹Ibid., p. 152.

acquisition of two major commodities in particular, standardised housing and the automobile. The erosion of the traditional mode of life, rooted in the wage-relation's imposition of and invitation towards a more mobile way of life, reinforces the further acquisition of possessions (commodity means of consumption) as the means of enriching life.

While the concept of social consumption norm is the theoretical equivalent to Marx's 'historical and moral' element in the worker's traditional standard of life, it also involves a shift in perspective from the given, static condition in Marx's definition of the value of labour-power to a dynamic role in the accumulation process. The social consumption norm is subject not only to an evolution in its material content and level, but also a process of social differentiation.

It is possible to connect the value of labour-power concept to this differentiation of consumption into a multiplicity of living standards as the means for the continuous renewal of status distinctions rooted in the hierarchy of wages based on the differential treatment of different categories of labour-power within the division of labour. There are two senses in which Aglietta identifies differences in the standard of requirements for the maintenance and reproduction of the labour-power: the representation of social position through standards of consumption and their routinisation as acquired habits in the maintenance cycle of labour-power.⁴⁰

Aglietta's account is very generalised, but seems to provide a reasonable starting point for the most difficult aspect of the analysis of consumption. This is the ironic fact, in a patently affluent society,

⁴⁰M. Aglietta, op. cit., p. 156.

of the pervasive experience of the pressures of the cost of living, felt at very different levels of consumption.

The social consumption norm, in Aglietta's conception, functions in both a relative and an absolute manner. Living standards are relative necessities to the extent that they have the function of representing status distinctions. Equally importantly, they come to define an absolute level of necessity through the process of routinisation of the consumption practices into ~~the~~ cultural habits, which constitute the cycle of maintenance of labour-power. Of course, living standards remain relative in the logical sense^{that} any living standard can be forced down to a lower material level, as occurs through the devaluation of labour-power. Such retrenchment, however, entails a financial restructuring of the living standard, directly attacking the ontological security of the personality rooted in the habitual and routine,⁴¹ when the elements supporting the accustomed and customary standard of living are put into question as unnecessary expenditures. Even a contraction of discretionary income carries the threat insofar as it presents necessity in the guise of an erosion of the margin of freedom from necessity. The material standard which corresponds to necessity conceived in this way is, of course, relative to the person or social unit described.

A more specific understanding of the structuring of necessity into the practices of individual consumption can only be suggested at this point. A central argument of this thesis is that the distinction between necessity and non-necessity in consumption, which is crucial to the (traditional) value of labour-power interpretation of the

⁴¹A. Giddens, Central Problems in Social Theory (London: MacMillan, 1979), pp. 126-8.

position of wage-labour, is amenable to analysis in terms of the financial and use-value structure of the cycle of reproduction of labour-power. The theoretical issue at stake is the question of whether and to what extent the logic of value governs the sale and reproduction of labour-power in the face of the evident contraindication in the enormous rise in real wages and living standards in this century.

It is true that a rising curve of real incomes is bound to affect the applicability of the value of labour-power concept insofar as incomes continually run ahead of consumption needs. That is to say, even if we treat typical consumption expenditures (i.e., the average level) as the required level of the reproduction of labour-power, a significant segment of the population all along the time curve will have a surplus over the necessary level when our conception of the necessary level depends on the consolidation of customary routines and expectations. The same could be said, on the other hand, simply on the grounds of variability in the price of labour-power (relative to its value for a given type), except to the extent that the social consumption norm is held to be a function of differences in income. Conversely, with any cessation of the growth in real wages, a shrinkage of discretionary income is to be expected (but not its disappearance, given the continuous and rapid change in individual circumstances, e.g. children growing up and leaving home, which drastically alters the level of need in family consumption⁴²).

⁴²On the rapidity of change in family composition, cf. G. J. Duncan, 'Change in the Economic Status of American Families, 1967-73' in Surveys of Consumers, 1974-75, edit. by R. T. Curtin (Ann Arbor: University of Michigan, 1976) and G. J. Duncan and J. N. Morgan, 'Persistence and Change in Economic Status and the Role of Changing Family Composition' in Five Thousand American Families - Patterns of Economic Progress, Vol. 9, edit. by M. S. Hill et al. (Ann Arbor: University of Michigan, 1981).

It could be argued that the widespread existence of discretionary income, normally defined as income in excess of the level typically required to family expenditure needs, makes implausible any interpretation by means of the value of labour-power concept, but for the following statistic regarding its extent. The joint study, cited earlier, by the Consumer Research and the U.S. Bureau of the Census estimated that discretionary income defined as income higher than a 30% cut-off above average personal consumption expenditure was to be found in 30.7% of American households in 1980.⁴³ Taking the statistic in its inverse form, some 70% of American households would be defined as having no discretionary income. Some qualification must be made to the comparison since the latter figure is not as rigorously determined as the former because the criterion for discretionary income is intentionally conservative. The result can, nevertheless, be taken to indicate that substantial discretionary income is not the general phenomenon. Not surprisingly, of the households identified as having discretionary income, roughly 85% have above average incomes, but this includes many blue collar workers. Perhaps, a socially more meaningful comparison is the following. According to Table 1, households of blue-collar workers and others with discretionary incomes have an average income half again as high as their occupational group, which places them at the income level of the class of professionals and managers as a whole.

⁴³F. Linden et al., A Marketer's Guide to Discretionary Income (Washington, D.C.: USGPO, 1983), p. 15.

Table 1. Discretionary Income Among Households
by Occupation of Householder, U.S., 1980

	Total households (000s)	% with discret. income	<u>Average income</u>	
			Overall	With discret. income
Professionals and managers	19,450	50.5	\$32,265	\$44,480
Sales and clerical	10,246	32.7	22,666	36,508
Blue-collar workers	20,247	30.9	22,698	33,834
All other occupations	10,634	18.4	16,489	33,062
Nonworker or armed forces	21,792	17.9	11,023	25,312

All households	82,368	30.7	21,063	36,954

[Source: F. Linden et al., A Marketer's Guide to Discretionary Income (Washington, D.C.: USGPO, 1983), p. 38-9.]

Aglietta attaches great weight to status differentiation in explaining how the value of labour-power can exist as a differentiated phenomenon, but no specific study of consumption is provided. Hence, many questions pertaining to the relation between the practices of individual consumption and the cycle of the reproduction of labour-power are left open. The relation of status to consumption can be interpreted in different ways. If, for example, it is claimed that status distinctions set actual standards of adequacy for living standards, then it would make a considerable difference to the analysis if it is possible to identify the consumption practices and the use-value structure of consumption which constitute the 'necessary' level for different statuses. Incomes in excess of this level would then constitute an identifiable surplus over socially-defined requirements.

While it would not be easy to separate the necessary from the surplus element, when affluence pads out expenditures across the board for the whole spectrum of categories constituting the normal household budget, if no distinction exists, in practice, between obligatory and superfluous aspects of the living standard, then status differences would have to be regarded as merely the reflection of income differences, i.e. average differences, and status norms would have no independent force in the analysis. In that case, the process which gives rise to the differentiation of living standards (within the framework of the law of value) would have to be regarded as operating atomistically, at the level of the individual, vis à vis the relation between wage-income and need formation in consumption.

In either case, the same overall, long-term social pattern of consumption can be derived. A continual upward readjustment of norms (to rectify distortions in status position arising from past wage movements) and a uniform upward drift in customary living standards associated with a general rise in real incomes will both yield a social scale of consumption. The value theoretic interpretation, however, will differ somewhat depending on whether the prevailing 'law' of individual consumption as it relates to the value of labour-power is truly stratified or completely atomistic. Wage-determination, for example, might be found to have a status component (e.g., the pay ladder) giving rise to sectoral movements in wage-demands; or, the process may be more uniform, with cost of living pressures and the demand for higher wages clustering around demographic differences. An example of the latter process would be a relationship between the greater needs of younger workers with families in the family-formation stage of the family life-cycle combining with the normal wage level

of younger relative to older workers.⁴⁴

Some part of the construction of a concept of a differentiated value of labour-power might be derived from a detailed study of how financial commitments are structured into ordinary consumption expenditure practices. Instead of examining the usual breakdown of the typical household budget by use-value groups, we consider expenditure practices from the point of view of family budget systems aimed at achieving control over living expenses. What is of interest here is the generality of the form in relation to the variability of the content. One such 'personal money management system' is presented, with much attitudinal and tactical advice, by Silvia Porter in her popular Money Book.⁴⁵ The fundamental distinction on the expenditure side is that between controllable and non-controllable expenses. This provides the basis for dividing expenditures into the two categories of 'fixed expenses' and 'day-to-day living expenses', plus an additional special category of 'savings or reserves', which she suggests must be treated as a fixed expense if any savings is to occur. Fixed expenses are defined as "unavoidable expenses - the big items such as insurance premiums, repayment of personal debts, real estate taxes - which must be paid no matter what the inconvenience."⁴⁶ Looking over the two lists, it becomes clear what a complex and heterogeneous phenomenon necessity is vis à vis an established living standard.

⁴⁴cf. Discussion of equivalent net income over the life-cycle in G. C. Fieghen et al., Poverty and Progress in Britain, 1953-73 (Cambridge: Cambridge University Press, 1977), p. 53-4 and Chart 5-4; also, C. Fitzsimmons and F. Williams, The Family Economy (Ann Arbor: Edwards Brothers, 1973), p. 183-9.

⁴⁵S. Porter, Sylvia Porter's Money Book (New York: Avon, 1976).

⁴⁶*Ibid.*, p. 12.

First, we consider the composition of the 'fixed expenses' side of the household budget. The list includes:

Figure 2
Fixed expenses

Rent or mortgage payments

Predictable, regular household bills

electricity, gas, heating fuel, telephone, water,
garbage collection, cable TV, lawn mowing, etc.

Installment payments

car, washing machine, etc.; Christmas or Hanukkah
Club; charge or credit card accounts; personal or
education loan, etc.

Major once- or twice-a-year obligations

real estate taxes, tuition payments and fees
(education), insurance premiums (auto, home, and
life), membership dues (union or professional body),
pledged contributions

Medical and dental expenses

reference is to foreseeable expenses over the year:
e.g. annual checkup, eye exams, orthodontia; health
insurance premiums; predictable drug and vitamin bills

Federal and state income taxes (not withheld)

Automobile and commuting expenses

reference is to accurately estimable expenses, such as
commuter train tickets, car pool costs, monthly
parking bills, car registration and inspection, average
gas and oil bills

Membership dues

union, club or professional association

The items listed are regarded as the obvious items of fixed expense to be included. One 'less obvious' item of fixed expense is singled out and recommended for inclusion from the money management point of

view: the monthly personal allowance for each family member as a lump sum which covers incidentals such as lunches, gifts, possibly clothes, children's music lesson.

The list of fixed expenses clearly presents a mixture of elective and non-elective items. The elective items, e.g. educational fees and insurance premiums, become fixed costs derived from past use-value decisions. Only in a few cases are the costs controllable to some extent through imposing some form of restriction directly on the consumption practices. The most obvious ones to be targeted by people in their periodic attempts to control living expenses are telephone usage (number and length of calls), use of electricity, and the like, where the charge is directly related to the level of usage. Significant changes do occur in these areas. A prime example was the general movement to control energy consumption, both in business and in the home, after the oil crisis in 1973-74, with tactics varying from attempting to lower accepted standard of comfort, 'capital investments' in the home (insulation, solar panels, radiant heat devices).

Various devices are described for transforming savings into a fixed item of expense, which have an unambiguous effect in reducing the discretionary area of the flow of income and expenditure: automatic deduction from checking accounts by the bank for transfer into savings accounts; payroll savings plans provided by many corporations; automatic investment of a portion of the paycheck in U.S. savings bonds, mutual funds, or company stock.

The interesting aspect of the area of the household budget which is reckoned as controllable is that it consists of items which are subject to immediate payment on purchase. The list is not confined to small items only.

Figure 3
Day-to-day Living Expenses

Food and related items

regular grocery bills (everything normally bought at a supermarket, including soft drinks, beer, wine and liquor; cigarettes; pet foods and supplies; toothpaste and cosmetics); amount spent on eating out at restaurants, including tips; candy and snacks from vending machines

Household services and expenses

home repairs and improvements; maintenance costs that are not part of fixed expenses; cleaning supplies; household help

Furnishings and equipment

whatever is bought outright for cash and down payments for large and small appliances, glass, china, silverware, curtains, rugs, uphostering, accessories, other items

Clothes

including repairs and alterations, laundry and drycleaning, and seemingly insignificant accessories which mount up

Transportation

car repairs, tune-ups, oil changes, new tires; bus, train, taxi, and air fares; parking charges; bridge tolls

Medical care

doctor and dentist bills not listed under predictable, fixed expenses; drugs; eyeglasses; hospital and nursing expenses not covered by medical insurance; veterinary bills

Personal care

hairdresser; toilet articles; cosmetics and other items not paid for out of personal allowances and not in the supermarket bill

Education and recreation

books; theater, movie, and concert tickets;
entertaining friends; newspaper and magazine
subscriptions; musical instruments and music lessons;
hobby equipment; vacation and holiday expenses;
upkeep of pleasure boat, swimming pool, or riding
horse; tuition and fees not included under fixed
expenses

Gifts and contributions

whatever is not paid for out of personal allowances

Other things

Certain dichotomies of consumption practices emerge between the two lists. Fixed expenses almost entirely involve the practice of paying bills on some regular basis and correspond to Marx's observation of the generalisation of the function of money as means of payment (the separation between purchase and sale), whereas day-to-day expenses, whether small or large, involve the practice of shopping and the use of money as means of exchange. The exceptions in S. Porter's lists provide an opportunity to reflect on the difference. We note that newspaper and magazine subscriptions have been listed with the day-to-day expenses, presumably for the sake of simplifying the scheme, but in fact these ought to be under fixed expenses. A subscription is different in practice from purchasing the same items from, say, a newsstand. An example in reverse is the practical difference between a monthly fuel bill and paying for heating through a shilling-meter, which gives it the character of a day-to-day expense. The effect of the difference in the form of expenditure could not be said to make the fixed expense invariably higher - for example, the usual inducement of lower rates per issue to subscribers - one can see a certain monetary logic to incidentals taken as a whole: while incidentals tend to absorb all the available cash, they are also limited by it.

From a strict budgeting point of view, listing charge and credit accounts under fixed expenses would appear to be misplaced since items listed under day-to-day expenses are paid for in this way; but it has some sense to it from the point of view of ordinary, less self-conscious expenditure practices. Most accounts have a minimum monthly payment requirement, and one suspects credit card payments almost universally become a permanent debt-servicing item in the household budget. In a similar manner, such larger items as household durables, when bought on the installment plan, have the financial effect of moving use-values from the day-to-day category, where they are discretionary (and may involve an initial cash deposit), to the fixed expense area, where they become obligatory and recurrent, besides adding in a layer of interest charges to the standard of living.

Some absurd problems arise when scrutinising every expenditure item for its relevance to the reproduction of labour-power. The logic of customary standards of living is not functional and utilitarian. The problem of a criterion for what aspects of consumption count towards the reproduction of labour-power is not unlike the problem of defining a standard of poverty. A glaring example is the keeping of animal pets, for which (or whom?) one could even construct a parallel list of day-to-day living expenses. Yet, once they're in, the expenses follow.

We consider how the maintenance cost of the standard of living appears from the point of view of its use-value structure. We start with the maintenance of the body and add in housing, mode of transportation, upbringing of children, and so on, without forgetting to include pets somewhere down the list. Where the item acquired is a commodity, there is an associated price as well as continuing maintenance and operating costs. Each acquisition or possession can be conceived as structuring into the existing standard of living a layer

of payments, if these are spread over some period, and continuing costs of maintenance and operation. Quite complex differences in the way living standards are constituted can then be determined as they relate to the question of different maintenance levels in the reproduction of labour-power.

While every aspect of the use-value structure of each actual standard of living could be construed as having some connection with the reproduction of present and future labour-power, we could consider distinguishing those elements which are more obviously directly related from those that are not. The object of such an exercise would be to take a more discriminating look at those elements within given standards of living which are functionally necessary to the maintenance of the wage-earner as labour-power, allowing for status distinctions in the form or quality, so as not to impose an external standard of efficient or even minimum maintenance. The task is rather daunting in prospect. It is also necessary if any distinction is to be made between the surplus and necessary elements of consumption, bearing in mind that surplus value consumed as revenue is an aspect of the sphere of consumption.

Some indications can be given about possible directions in the analysis of the use-value structure of consumption. One claim is the essential similarity of the use-value structure of family living standards at widely differing levels in value terms.

Aglietta has already suggested that the social consumption norm is governed by two major commodities - the purchase of a house and the automobile - whose reduction in unit value through standardisation of form (style) and mass production has created the possibility of their incorporation into the material basis of the reproduction of labour-power. It is fairly obvious from an inspection of Figure 4 that a large

portion of consumption expenditure is tied to these two commodities, not only in terms of the cost of acquiring them, which commits a portion of the living standard to the retirement of debt obligations, but also in terms of maintenance and operating expenses and insurance.

Figure 4
Use-Value Structure of the Social
Consumption Norm

Purchase/ Payment	Maintenance/ Operating Cost	Insurance Cost
<u>Personal items</u>		
Food		life insurance
Clothes		medical/dental
Personal Care		insurance
Medical/dental		
<u>Housing</u>		
mortgage payment or rent	utility bills (heating, telephone, etc.) repairs housekeeping costs	insurance
<u>Furnishings and equipment</u>		
purchase/ payments	service & repair	household insurance
<u>Transportation</u>		
(no car)	commuting cost	---
car payments	registration inspection servicing & repairs gas parking fees bridge tolls tires	auto insurance

Children

pre-natal care & delivery	food clothing education paid childcare medical/dental allowances toys & gifts	(additional insurance coverage)
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Animal Pets

purchase	food veterinary care pet care items	veterinary insurance?
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Further Education, Entertainment and Recreation

educational fees, books and supplies
'durable toys' - purchase/payments, operating expenses,
maintenance & repair, insurance
entertainment - tickets (concerts, films, sports events)
sports activities - equipment, fees
hobbies
social entertainment
holidays & vacations
weddings, burials

Community

---	dues, contributions, tithes
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Savings

---	planned payments
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These two items of consumption provide key examples of the fusion of necessity and luxury at the use-value level. Much of status difference in consumption can be attributed to differences in the quality (and consequently price) of these two items, which in turn entail differences in the level of maintenance expenditure - e.g., for a larger house or a larger car. Some variation must also exist with respect to these two commodities, e.g. the lower frequency of home and automobile ownership at lower incomes, but this would be part of the difference in level of the consumption norm accompanying quantitative differences in the analysis of the value of labour-power.

The use-value structure of the consumption norm suggests some other specific ways in which differences may arise in the level of income necessary merely to maintain living standards. For example, it is well known that families in the process of formation are mostly likely to rely on credit to aid them in the acquisition of the typical consumer durables which have become normal elements of consumption at all levels of income. Although credit is quite widely available to shorten the time involved in the acquisition of the standard consumer durables, one way in which status differentiation in consumption can come to be associated with a higher level of necessary income is the opportunity higher income families have of purchasing more of the elements of the consumption norm in a shorter time through a greater number of concurrent hire-purchase payments or larger ones (for higher quality goods). At the same time, the observable connection between the use of credit in the process of acquisition of consumer durables and the process of family formation suggests that needs rather than superfluities govern this relation between income and living standards. G. Hendricks et al. (1973) show just such a relationship in the longitudinal panel study of 2,604 families by Survey Research Center, University of Michigan interviewed between 1967 and 1970.

Married couple families spend a higher proportion of their income on consumer durables, including the automobile, than single people; those with younger family heads spend more than those with older family heads; and finally the proportions decline with the age of the children, starting at the highest point with married couples prior to having children. The family life-cycle pattern follows the same form for the amount of installment debt as a portion of income, but in a

more pronounced way.⁴⁷

Insurance, which we have distinguished from other maintenance and operating expenses in Figure 4, provides a classic example of an acquired need in the evolution of the social consumption norm (to higher standards of living). Insurance might be reckoned as having no use-value in itself, but functions in a second-order fashion as a protective device relative to the monetary aspect of the use-values which directly constitute the social consumption norm. Few, I believe, would reckon insurance a luxury, but it displays the peculiarity of the modern form of necessity that those who cannot afford it, need scarcely think about it (which seems to demonstrate the relativity of conventional necessities). Those who purchase insurance, contract a conventionally accepted necessity into their living standard as fixed item of expenditure. Finally, in terms of the evolution of the social consumption norm under conditions of rising real wages, the earlier possession of insurance among those with higher incomes can be seen to point the way to forms of need which are beyond present possibilities of possession for others. Not all advances in consumption require the interpretation of the transformation from former luxuries into present necessities. It becomes a nice question, of course, how one is to distinguish luxuries from necessities in the general upgrading of living standards through a downward movement of use-values through the status levels.

As one moves towards the bottom of the use-value structure of the social consumption norm as presented in Figure 4, the connection

⁴⁷G. Hendricks et al., Consumer Durables and Installment Debt: A Study of American Households (Ann Arbor: Institute for Social Research, University of Michigan, 1973), pp. 61-65.

between use-value and necessity, regarded as a requirement in maintenance cycle of labour-power, becomes very clearly more tenuous. This is particularly noticeable with cultural events, holidays, adult education, adult toys, hobbies, etc. all lumped together as 'Education and Recreation' expenses. While the argument is sometimes made that general access by wage-labour to the restorative and compensatory aspects⁴⁸ of the possession of former luxury items can be taken to define their function in the reproduction of labour-power, constituting them as aspects of necessary consumption and the value of labour-power, this is not the only argument possible.

From a theoretical point of view, the compensation thesis causes the 'cost of production' version of the value of labour-power to become indistinguishable from the variable capital version unless one can distinguish between the surplus and necessary elements in this realm of use-values. This is not^{to} deny that the low-income of many workers affords them very little in the 'compensatory' area beyond minor pleasures (and television), but they are not the whole picture.

Somewhere along the income curve the question of the consumption of surplus value becomes unavoidable, but there seems to be no grounds for expecting it to be distinguishable in kind insofar as consumption varies with the level, and not the kind of income. The theory of value requires a category of surplus consumption relative to the existence of property income, i.e. surplus value distributed in the form of personal revenues, which naturally concentrates at the upper end of the income distribution and, for the few, supports their entire existence without the necessity of selling labour.

⁴⁸Or pacifying effects, depending on one's view of the role of television.

Working downwards from this point, the phenomenon of inflated salaries of managerial and certain professionally qualified staff at the upper end of the pay-hierarchy comes into play, which is not generally considered reconcilable with the value of their labour-power, either in terms of the level and forms of income or their functions in production. Various proposals exist for analysing the ambiguous realm of the upper reaches of wage-labour in terms of their contradictory class location, combining the necessary functions of coordinating and planning production and the supervisory or labour discipline aspects of capital's appropriation of surplus value, with a corresponding distinction between the variable capital and surplus value aspect of salaried incomes.⁴⁹

While the surplus value element of income can be determined formally with respect to income derived on a property income basis, such as stock options, profit-sharing, dividends, etc., this leaves a large residual of undetermined surplus element incorporated in the salary wage. The distinction, obviously, cannot be made without some criterion in these cases. Insofar as the effect on consumption operates across the board by income level (and status claims), e.g. the value and quality of the house and furnishings or the model of automobile, as against distinctly luxurious items like a riding horse, swimming pool, etc., there is scarcely any imaginable, nonarbitrary basis from within consumption for distinguishing luxuries from necessities related to the reproduction of labour-power.

⁴⁹ Among others, G. Carchedi, 'On the Economic Identification of the New Middle Class', Economy and Society, Vol. 4 No. 1 (Feb 1975): 1-86; E. O. Wright, 'Class Boundaries in Advanced Capitalist Societies', New Left Review No. 98 (July/August 1976): 3-41 and 'The Value Controversy and Social Research' in I. Steedman et al. The Value Controversy (London: New Left Books, 1981), with references to his other writings.

The only way out of that conundrum for value theory is to attack the question from the side of production by determining the contribution to value. This seems at least remotely possible in the 'abstract labour' framework to the extent the labour reduction and wage rate aspects are separated, as in U. Krause's approach. If results conform to expectations, and the salary income is, indeed, found to be greater^{than} the value contribution, then a corresponding surplus would be indicated within consumption, but only as a portion of total expenditure on consumption.

Surplus value determined in this fashion is quite different from the empirical measure of surplus within consumption known as 'discretionary income', which was brought into the discussion in Part 3. The latter concept does not take the grading of labour-power and corresponding distinctions in consumption status into account; instead, 'discretionary income' is little more than a relative measure of income in which the level of necessity is by definition equal to the average household expenditure of broad groups defined by a few elementary, demographic variables, such as number of persons in the household, region of the country, etc.⁵⁰

We now return to the point where this portion of the discussion began: the query whether some elements of the use-value structure of consumption can be separated out under a stricter definition of the reproduction requirement. In particular, we consider treating the general category of 'further education, entertainment and recreation', which seems to group the use-values least connected to the reproduction of labour-power - as a layer of surplus consumption found

⁵⁰cf. note on discussion of discretionary income in Part 3.

in virtually all levels of living standards. We are led by this towards a different element of surplus than the one discussed above, which distinguishes between wage-earners who derive part of their income from surplus value from those who do not. In the new case, the possibility is posed of the evolution of a distinct area of freedom from the constraint of reproduction at the bare level of maintenance as labour-power as a peculiar feature of the affluence of the 'Fordist' mode of consumption.

The evolution of an area of non-necessity within the realm of consumption would derive from the same dynamic linking mass production and the need for mass markets as before. Even if the development were accounted for from the side of capital in terms of channelling the dissatisfactions of wage-labour and a commoditised mode of life in a consumerist direction, given that little else can be done with a marginal excess income, nevertheless, an irreducible element of freedom is introduced from the point of view of labour. Arguably, given a sufficient rise in real incomes above the level of day-to-day necessity, a point of choice must naturally arise between, on the one hand, upgrading the standard of living by covering areas of need not previously considered attainable, such as security in old age or insurance against theft and illness, and experimenting with novel forms of experience which we associate with the use of leisure time.

The effect of positing a layer of surplus consumption on an analysis of consumption in terms of the value of labour-power conception is interesting to contemplate. It is, to begin with, a rather thin layer on which to pin much freedom, but neither is it negligible. The entire category represents an order of 5 to 7% of

average family expenditures.⁵¹

This area of consumption is as subject to distributional inequalities as any. Table 2 shows both the distribution of these provisionally 'surplus' elements relative to income and the change at the lower end as a constituent of consumption.

The data series from which Table 2 was drawn, unfortunately extending only to 1960-61, is of rather limited value to this discussion. The figures in the table were converted from dollar values to percentages in the table to give a picture of the change in the use-structure of consumption. The indicated changes are 1) the general rise in the 'surplus' elements of consumption over time to levels associated with higher incomes at an earlier stage and 2) the downward reach of these elements as a more significant fraction of total family consumption expenditure. A reminder is in order that the table should not be read down the columns as a comparison of change within income bands since the value of the dollar has declined over this period and real incomes in general have risen. One sign of the effect of this factor are the erratic values in the table for the lowest income band (income band 1), comprising a relatively small number of families, whose consumption expenditure far exceed their average income (presumably because of a large number of retired families living on savings).

⁵¹In the Bureau of Labor Statistics' annual budgets for urban families of four in the U.S. (consisting of husband, wife, boy 13, and girl 8) at three living standards, described as 'lower', 'intermediate' and 'higher', the item 'other family consumption', comprising recreation, tobacco and education is factored in at 4.2%, 4.7%, and 5.2% of the three budgets respectively. From figures shown in National Consumer Finance Association, 1982 Finance Facts Yearbook (Washington, D.C.), p. 29.

Table 2. Elements of Possible Surplus Consumption
as a Percent of Average Expenditure for Current
Consumption of Urban Families by Income,
U.S., for Various Years

	Income band									
	All	1	2	3	4	5	6	7	8	9
Tobacco										
1935-36	--	1.9	2.2	2.2	2.1	2.1	1.9	1.7	1.3	
1950	1.8	1.3	2.2	2.1	2.0	1.9	1.7	1.6	1.4	1.0
1960-61	1.8	2.1	2.4	2.2	2.2	2.1	2.0	1.9	1.7	1.2
Recreation										
1935-36	--	1.3	1.8	2.4	2.9	3.3	3.6	4.0	4.9	
1950	4.5	2.1	2.4	3.3	4.3	4.9	4.8	5.2	5.1	5.5
1960-61	4.1	3.2	2.1	2.6	3.3	3.5	3.7	4.1	4.5	4.8
Reading										
1935-36	--	1.0	1.1	1.1	1.1	1.0	1.0	1.0	0.9	
1950	0.9	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8
1960-61	0.9	1.0	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9
Education										
1935-36	--	0.3	0.3	0.5	0.7	0.8	1.1	1.4	2.1	
1950	0.6	0.5	0.2	0.3	0.4	0.6	0.7	0.8	1.0	1.5
1960-61	1.2	1.2	0.5	0.5	0.6	0.6	0.8	1.0	1.1	2.3
Other items										
1935-36	--	0.7	0.4	0.4	0.4	0.4	0.4	0.5	0.7	
1950	1.5	4.1	1.8	1.5	1.1	1.2	1.4	1.5	1.3	2.9
1960-61	2.2	6.3	3.8	1.9	1.6	1.7	1.6	2.0	2.0	3.4
TOTAL										
1935-36	7.3	5.2	5.8	6.6	7.2	7.6	8.1	8.6	9.9	
1950	9.3	9.1	7.5	8.2	8.7	9.4	9.4	9.9	9.7	11.8
1960-61	10.2	13.8	9.7	8.1	8.5	8.8	8.9	9.9	10.2	13.7

[Source: Hist. Stat. of the U.S., Series G 602-696, pp. 323-4.
Consumption expenditures in current prices of all families of 2 or
more persons in cities of 2,500 and over]

Tobacco is here included among the 'surplus' elements in Table 2 to make the total comparable to the 'other family expenses' category of the Bureau of Labor Statistics' model family budgets (cited above in the footnote). It also provides an element of comparison as an item which has not changed its position very much in the use-value structure of the standard of living over time or with higher income. If the consumption elements in the table were presented as percentages of income (before tax), they would have been lower by about one-quarter of what is shown. No indication is given whether the 'education' item refers to children and adults or adults only for further education, but we have followed the procedure of the Bureau of Labor Statistics model urban family budgets.

To categorise any portion of consumption over the whole range of living standards as a surplus over requirements for the reproduction of labour-power will obviously have an impact on the employment of the value of labour-power concept. Our reason for considering it is to adjust the value theoretic account to recognise labour's potential autonomy based in money as the 'general form of wealth', which is most realisable at the margin of a rising real wage. By explicitly introducing such a category of surplus within consumption, we implicitly acknowledge an area of struggle which specifically concerns the allocation and use of the social surplus. J. O'Connor proposes to treat this struggle as an underlying cause of the crisis in the capitalist economies from the mid-1960s, but with the interpretation that all value going to labour constitutes the more or less hard-won, self-valorisation of labour-power in competition with

capital's demand for surplus value for reinvestment.⁵²

The freedom to develop as something other than labour-power provided by a layer within the living standard, not already claimed as necessities by the structure of consumption, is quite limited in two respects. First, given the small size of the 'surplus' elements in consumption overall, a very little contraction in income or a rise in the cost of living due to inflation would imply a financial squeeze on these elements. Second, the condition of dependence on selling labour-power is unaffected, except for those living solely on a wage income who have a substantial enough margin to accumulate funds, possibly with some sacrifice in living standard, to escape their class position and set up their own business (not uncommon in the U.S.).

The element of savings, not touched on so far, is a similarly ambiguous element in the analysis of living standards. On the one hand, the ability to save certainly implies a margin in the wage above current necessity in the reproduction of labour-power; on the other hand, unless there is a prospect of accumulating real wealth (in this context, sufficient to remove the necessity for selling wage-labour), savings are relatable to needs or uses in consumption as 'deferred consumption'.

The conclusion we draw from the effect of positing a layer of consumption above the level of necessity in the living standard of the wage-earners is that the 'cost of production' conception of the value of labour-power can tolerate a margin of either indeterminacy or even a definitely identified element of surplus. The limiting condition from the

⁵²J. O'Connor, Accumulation Crisis (London: Basil Blackwell, 1984), pp. 69, 158.

analytical point of view is that the wage lies below the level which would enable the worker to transcend their dependency on wage-labour. At the same time, the general existence of such a 'surplus' or discretionary element in the wage-level, sandwiched in between income and necessary expenditures, implies a change in the general condition of life. The form in which the pressure of the cost of living is generally manifested will have changed from the little insolvencies, such as being unable to 'make ends meet', i.e. pay the bills on time, to a perceptible shrinkage of free spending money.

Consumer Credit and the Value of Labour-Power

Discussion of consumer credit has made evident the supporting role it plays in the accumulation process based on mass production. We are interested in pursuing the question of the nature of credit for consumption from the point of view of the reproduction of labour-power and, in particular, its relation to the value of labour-power.

Consumer credit is distinguished from business and government credit. It encompasses all forms of lending to individuals for the purpose of personal spending. Besides mortgage purchase of a house, the forms range from installment purchase (or hire purchase) of automobiles and other durable consumer goods, retail purchases on credit at a shop or with a credit card, and direct loans from a credit finance company or bank. As with any other form of credit, it bears a charge in the form of interest or a fee. The phenomenal rise in the use of credit by households for consumption is shown in Table 3, which shows consumer credit by major type for the United States from 1919 to 1984.

Some idea of the range of commodities which are commonly purchased on credit and their relative importance can be gleaned from the types of credit in the table. The major types of credit are explained in the source below.⁵³ The data are collected by the Federal Reserve and regularly published in the Federal Reserve Bulletin. It includes short- and intermediate-term consumer credit used for purchases of commodities and services for personal consumption or to refinance such debt.

'Installment credit' is defined as all consumer credit scheduled for repayment in two or more payments and covers purchases of automobiles and other consumer items, home improvements and personal loans. Revolving credit, budget, and coupon accounts are treated as installment credit because of their periodic repayment basis. The estimates generally include the finance charges (including insurance and other fees). Credit extended for automobile purchases (actually measured by the money value of 'automobile paper', which is subject to sale) includes new and used automobiles; the same applies for 'other consumer goods', which includes items such as "home appliances and furniture, jewelry, mobile homes, and boats." Credit in these cases includes both that extended by the retailer (who, normally sells the paper to a financial institution) and loans from a lending institution made directly to the consumer. The 'repair and modernisation loans' are used to finance the maintenance and improvement of homes, which may be used for "the purchase and installation of equipment, such as heating and air-conditioning systems, hot water heaters, storm

⁵³Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition, Part 2 (Washington, D.C., 1975), notes to the tables, p. 1000.

Table 3. Growth in Consumer Credit, by Major Type, U.S., 1919 - 1984

Year	Installment Credit					Non-Installment Credit				
	Total Credit Outstanding * (\$ billions)	Total	Automobile	Revolving	Mobile Home	All Other Loans	Total	Single- Payment Loans	Charge Accounts	Service Credit
1984	520.1	418.1	152.2	82.4	24.1	159.3	102.0	55.5	15.8	30.7
1980	389.7	314.9	116.8	58.5	17.3	122.2	74.8	42.4	13.1	19.3
1975	223.1	172.0	57.2	15.0	14.4	85.3	51.1	27.4	11.7	12.0
1970	143.1	105.5	36.3	5.1	2.5	61.6	37.6	19.3	9.2	9.1

Year	Installment Credit					Non-Installment Credit				
	Total Credit Outstanding (\$ millions)	Total	Automobile	Other Consumer Goods	Home Imprvmt Loans	Personal Loans	Total	Single- Payment Loans	Charge Accounts	Service Credit
1970	126,802	101,161	35,949	29,949	4,110	31,612	35,641	9,484	8,850	7,307
1965	90,314	71,324	28,619	18,565	3,728	20,412	18,990	7,671	6,430	4,889
1955	38,830	28,906	13,460	7,641	1,693	6,112	9,924	3,002	4,795	2,127
1945	5,665	2,462	455	816	182	1,009	3,20	746	1,612	845
1939	7,222	4,508	1,497	1,620	298	1,088	2,719	787	1,414	518
1933	3,885	1,723	493	799	15	416	2,162	418	1,286	458
1929	7,116	3,524	1,384	1,544	27	569	3,592	1,040	1,996	556
1919	2,642	800	304	409	5	82	1,842	306	1,298	238

[Source: Upper table, Statistical Abstract of the U.S., 1985, No. 840; lower table, Historical Statistics of the United States, Series X 551-560, p. 1009]

* American usage: 1 billion = 1,000,000,000.

windows, and kitchen equipment, as well as for major alterations and additions." Personal loans are treated as a residual category, as when the reporting lender cannot identify the purpose of the loan; however, many of these loans are used to consolidate consumer debts, pay for medical, educational, or travel expenses, and to pay taxes or insurance premiums.

Non-installment credit refers to forms of consumer credit which are scheduled for repayment in one lump sum. Single-payment loans are loans made directly to individuals for consumer purposes, mostly for meeting short-term needs such as payment of personal taxes or life insurance premiums, although some in this category may be spent on goods. Charge accounts are a familiar category. These are ordinarily payable in full within thirty days. The charge account column includes gasoline service station accounts, miscellaneous credit card accounts and home heating-oil accounts. Finally, 'service credit' represents unpaid bills, of which the largest element consists of money owed to doctors, hospitals, etc., but also public utilities, educational institutions, and even laundry establishments for cleaning and dyeing.

The growth in aggregate dollar amounts of consumer credit is staggering, especially in the post-war period, giving the impression of an immense burden of debt. The current level of \$471 billion in installment debt (which excludes short-term, non-installment debt and home mortgages valued at \$1,549 billion) as of March 1985⁵⁴ is carried by a total population of 83.9 million households.⁵⁵ In

⁵⁴Federal Reserve Bulletin, Vol. 71 No. 7 (July 1985), pp. A39 and A40.

⁵⁵The 1983 figure based on the Current Population Survey, Statistical Abstract of the U.S., 1985, No. 55, p. 41.

Table 4. Growth in Consumer Credit, by Major Type, U.S., 1919 -
1984, Constant Price (1929 and 1967 Prices)

Year	Installment Credit				(1967 = 100)				Non-Installment Credit			
	Total Credit Outstanding (\$ billions)	Total	Automobile	Revolving	Mobile Home	All Other Loans	Total	Single- Payment Loans	Charge Accounts	Service Credit	Total	Single- Payment Loans
1984	179.8	147.9	56.8	30.8	9.0	51.3	31.9	17.9	15.8	8.5		
1980	169.4	141.0	55.5	27.8	8.2	49.5	28.4	17.2	4.9	6.3		
1975	143.8	112.4	39.3	10.3	9.9	52.9	31.4	17.0	7.2	7.2		
1970	124.5	92.3	32.5	4.6	2.2	53.0	32.2	16.6	8.1	7.5		

Year	Installment Credit				(1929 = 100)				Non-Installment Credit			
	Total Credit Outstanding (\$ millions)	Total	Automobile	Other Consumer Goods	Home Imprvmnt Loans	Personal Loans	Total	Single- Payment Loans	Charge Accounts	Service Credit	Total	Single- Payment Loans
1970	59,532	48,773	18,618	15,511	1,116	13,528	10,759	4,056	3,777	2,926		
1965	49,025	39,156	16,206	10,513	1,239	11,198	9,8690	4,208	3,278	2,383		
1955	23,163	17,285	8,261	4,689	693	3,642	5,878	1,789	2,792	1,297		
1945	4,642	1,924	338	606	127	853	2,718	631	1,279	808		
1939	8,828	5,470	1,835	1,986	315	1,334	3,358	965	1,784	609		
1933	5,330	2,328	664	1,076	21	567	3,002	569	1,844	589		
1929	7,116	3,524	1,384	1,544	27	569	3,592	1,040	1,996	556		

[Source of price deflators: Upper table, Statistical Abstract of the U.S., 1985, No. 791 (CPI price indexes), p. 476, using 'durables' for automobile, revolving credit, and mobile homes, 'all items' for other loans and single-payment loans, 'non-durables' for charge accounts and 'all services' for service credit; lower table, Historical Statistics of the United States, Series E 1-22 (implicit GNP price deflators), p. 197, using E3 for automobile and other durables, E11 for home improvements, E2 for personal and single-payment loans, E4 for charge accounts, and E5 for service credit.]

fact, only a little more than a half of all families are carrying installment debts.⁵⁶ The money figures can be qualified in a number of respects. A price-deflated version of consumer credit (Table 4), using 1929 as a reference year, gives a somewhat less hyperbolic, but nevertheless impressive picture, from a vantage point closer to the beginning of the intensive regime of accumulation described by M. Aglietta. Roughly speaking, a twelve-fold expansion in constant price terms of consumption mediated through consumer credit can be worked out from Table 4 for the period between 1929 and 1984.

Examination of the year by year figures in the published tables⁵⁷ reveals a steady rise in the use of consumer debt among households through the 1920s, reaching an initial peak in 1929. The process of development is interrupted by the Great Depression and the Second World War, resuming in 1945 with a starting point in actual dollar and real terms at the level of the mid-1920s. The automobile seems to have been the largest component of consumer credit as far back as 1919 (at about one-third of installment credit). It is reckoned to constitute about one-half of consumer installment purchases of durable commodities.⁵⁸

The 'burden' of consumer debt is conventionally measured as a ratio between total consumer credit and disposable personal income,

⁵⁶46.5% of all families in 1977 owed no consumer installment debt, according to the U.S. Federal Reserve 1977 Consumer Credit Survey, which updates the former annual Surveys of Consumer Finances, conducted by the Survey Research Center of the University of Michigan, cited in National Consumer Finance Association, 1982 Finance Facts Yearbook, pp. 47-8.

⁵⁷cf. sources under Table 3.

⁵⁸I. S. Michelman, op. cit., p. 268.

which is aggregate personal income after tax. This debt ratio has gradually risen from its levels of below 10% before the war and has been fluctuating around the 20% level through the 1970s and 1980s.⁵⁹ The limit of reasonable debt is a speculative matter; the highest level thus far is 23.2% in 1979.

It would be mistaken, of course, to take the full level of consumer debt as the amount to which consumption has been extended beyond the means provided by wage, salary and other forms of income. The greater part, approximately three-quarters of consumer debt, is turned over each year (Table 5), implying that the market expanding effect of credit in the accumulation process is constituted in the expansion of indebtedness. For the most part, purchases are matched to payments. If income were reckoned on a year's basis, then most of the consumption mediated through credit would be paid for out of present income.

Since borrowing for consumption is a significant part of personal expenditures, it naturally must figure into any analysis of the value of labour-power. Its chief peculiarity from this point of view is the access consumer credit provides to funds from outside the wage relation. Such credit is now generally available to most of the wage-earning class, raising the question of the nature of the relation between consumer credit and the normal reproduction of labour-power. Although the credit phenomenon is extensively treated by Marx, credit for consumption, which hardly existed in his time, is hardly discussed. Nevertheless, much of his analysis of the credit system is quite germane.

⁵⁹Statistical Abstracts of the U.S., 1985, No. 840, p. 501.

Table 5. Turnover in Installment
Credit, U.S., 1970-1983

	New Credit	Paid up (\$ billions)	Net Change	% Add to Total Debt	% Paid Paid up in Year	Paid Up as % of Disp. Inc.
1970	115.1	110.4	4.7	3.3%	77.1%	15.9%
1973	173.0	152.8	20.2	9.9	75.2	16.7
1974	172.8	163.3	9.5	4.5	76.5	16.4
1975	180.1	172.7	7.4	3.4	77.4	15.8
1976	210.7	189.2	21.6	8.7	76.0	15.8
1977	257.6	222.1	35.5	12.3	76.8	16.9
1978	297.7	254.5	43.1	12.8	75.3	17.3
1979	324.8	286.4	38.4	10.0	74.7	17.3
1980	306.1	304.6	1.4	0.4	78.2	16.6
1981	334.5	316.3	18.2	4.4	76.0	15.5
1982	344.9	331.8	13.1	3.0	75.1	15.2
1983	na	na	40.2	11.0	na	na

[Source: Statistical Abstract of the U.S., 1985, No. 840,
p. 501. Note: na means not available.]

Marx posited two distinct forms of the credit relation. One form of credit, associated with installment purchase ('hire-purchase' in Britain), is directly derivable from the commodity exchange relation, but the other is not. The first form, originating in a separation between the time of purchase and the seller's final realisation of exchange-value from the sale, provided Marx the formal basis for his derivation of the third main function of money as means of payment.⁶⁰

⁶⁰Capital, Vol. 1, pp. 232-3.

A credit arrangement transforms seller and buyer in an exchange relation into creditor and debtor. The phenomenon of credit in Marx's discussion pertained almost entirely to commercial transactions, i.e. exchange between capitals. He was especially interested in the phenomenon of the money-like circulation of bills of sale (at a discount), which came out of these transactions and provided the basis for the development of paper money. He saw its basic significance in terms of the temporary suspension of the constraint of consumption on production. Indeed, a whole pyramid of creditor/ debtor relations could be built up out of successive exchanges based ^{on} credit. Nevertheless credit only provided a relative independence to the production and the accumulation process, insofar as values had ultimately to be realised in consumption or a general glut eventually developed in the market, which brought the whole chain of credit crashing down like a house of cards. The realisation crises were aggravated by the fact that credit relations were set in monetary terms, whereas commodities in a state of oversupply were subject to a drop in prices. Consequently, it would become impossible to generate adequate means of payment from their sale.

The other form of credit is the loan. In this case, the relation of creditor and debtor is not based in an exchange relation. As Marx analysed it, the peculiarity of the relation consisted in the transfer of a property, a money capital, from one party to another without an exchange taking place, properly speaking. All that is returned is a promise to pay at a future date, with an additional payment of interest on the principal.

"The lending capitalist parts with his capital, transfers it to the industrial capitalist, without receiving an equivalent. . . . Ownership is not surrendered, since no exchange takes place and no equivalent is received." (Capital Vol. 3, p. 468)

"In the case of the simple commodity, the commodity as such, both buyer and seller retain in their hands the same value, only in a different form; both of these still keep the same value that they alienated, the one in the commodity form, the other in the money form." (Capital Vol. 3, p. 473)

While the difference from a formal point of view is quite striking, it appears to make little difference to our discussion as we shall see. However, one implication may be noted. Exchange based on credit and a loan of a monetary sum occupy different value circuits. Credit is directly involved in the circulation of commodities, which from the point of view of capital facilitates the realisation phase of its circuit of value. It is, as described in the Grundrisse, for example, a 'contrivance' of capital whose fundamental determinant, i.e. reason for being, is to achieve "circulation without circulation time."⁶¹ A loan, on the other hand, begins with money not otherwise employed. As such, it belongs to the fund of potential capital belonging to the capitalist class as a whole, which Marx has described elsewhere as the concrete form of existence of capital-in-general.

While this connection makes it appear that a personal loan to a worker from a bank constitutes a diversion of a portion of money capital, away from its potential use as capital (for investment) to consumption, the common fund does not consist only of accumulated surplus value. The monetary flows are complicated by the fact, for instance, of the deposits of most of the wage-earning class in the banking system, not to speak of pension funds and insurance reserves.

The difference in form is not necessarily significant per se. We can see this, for instance, in the form of the personal loan extended by a bank for financing the purchase of an automobile, as an alternative

⁶¹Grundrisse, p. 659.

to making the purchase on an installment basis. As an application of the monetary fund held in the banking system as a whole, it can be interpreted as a diversion of money capital away^{from} its potential use as capital for investment. The fusion of the two forms, exchange credit and loans, can be seen even more distinctly in the practice of consolidating debts through a credit finance company by individuals overburdened with installment payments. Formally, a previous debt based in the extension of credit by, say, a retailer to a worker for the purchase of some article is transformed into a loan debt to the credit finance company. Furthermore, if the funds employed by^a credit finance company for this purpose were obtained by leveraging its own capital with bank loans, then the distinction between a credit and a loan would collapse for the system as a whole as well. It might be possible to preserve the distinction if the flow of funds in the different circuits of value among different segments of capital could be worked out, but we will set aside the distinction in this discussion and refer merely to the 'credit system', as Marx does.

The extension of the credit system to the realm of consumption ^{has} proper_A the same basic effect on the accumulation process as Marx observed in the development of the system of commercial credit:

"The maximum of credit is the same thing here as the fullest employment of industrial capital, i.e. the utmost taxing of its reproductive power irrespective of the limits of consumption."
(Capital Vol. 3, p. 613)

The credit system, even without the extension to consumption, has an expansive effect on consumption itself as a consequence of the expansion of employment and revenues - the classic multiplier effect.

"These limits of consumption are extended by the stretching of the reproduction process itself; on the one hand this increases the consumption of revenue by workers and capitalists, while on the other it is itself identical with the stretching of productive consumption." (Capital, Vol. 3, p. 613-4)

Nevertheless, the expansion of the scale of the accumulation process through credit is subject to limits based in consumption, which is determined by the extent of revenues, i.e. income:

"... the replacement of the capitals invested in production depends to a large extent on the consumption capacity of the non-productive classes; while the consumption capacity of the workers is restricted partly by the laws governing wages and partly by the fact that they are employed only as long as they can be employed at a profit for the capitalist class." (Capital, Vol. 3., p. 615)

Marx went so far as to state that "the ultimate reason for all real crises always remains the poverty and restricted consumption of the masses. . . ." ⁶² But, in the light of our previous discussion of the 'impoverishment thesis', we take ^{this} to reflect the conditions prevailing in his time. It should be quite apparent that extending credit for consumption to the mass of wage-earners is a significant development since Marx's day.

Certain changes were required in the nature of the wage-relation before the possibility of mass consumption based on credit could be extended to the working class as a whole. The question posed by the changes associated with the development of credit for consumption is whether they transform the wage-relation between capital and labour to such an extent as to transcend the value of labour-power form posited by Marx or are they, in fact, no more than a modification of the form?

The historical change in the wage-relation is reflected in the history of the credit finance industry, whose business consisted of lending small sums at interest to individuals. ⁶³ These businesses,

⁶²Ibid., p. 615.

⁶³I. S. Michelman, op. cit.

often referred to as 'loan sharks' in the progressive reform era of the early 1900's, first appeared in the midwestern cities of the United States in the 1870's and spread very rapidly to the cities of the East Coast. They were mostly illegal operations, charging rates of interest on their small loans way above the rates allowed under local (state-level) usury laws. Yet, as the social reformers, who mounted public campaigns to eliminate the 'loan sharks' from about 1911, discovered, the lending business was rooted in a definite social need, not otherwise provided for at a time when extending credit for anything other than investment was unimaginable to, e.g., the banks. The usury laws of the time, which generally set a 6% per annum legal limit on the rate of interest on loans, actually made it impossible to operate a profitable, and legitimate, business in small, short-term loans to the sort people who were forced to resort to the 'loan sharks' to obtain personal loans. As a result, illegal operations flourished, charging rates of interest of 60%, 100% to as much as 200% and 300% annual rates - the usual story of usury.

The early forms of credit finance were the 'salary loan' and the 'chattel loan'. Both were innovations on the much older form of pawnbroking. Their chief feature was to do away with the surrender of personal possessions as the security on the loan. The lending relation was based, in the case, of the salary loan on the 'purchase' of the borrower's future salary at a discounted price - transforming the wage itself into a commodity. The transaction included a bill of sale which could be produced as evidence of the obligation in court. In the case of the chattel loan, the borrower's furniture or other personal possession was pledged as security against the principal, while the interest was disguised for legal purposes in various ways, such as the sale of a worthless oil painting to the borrower. The average size of

loans at this time was quite small, generally \$10 to \$40 under the salary loan system and about twice that under the chattel loan system.⁶⁴

This development occurred in a period of intense industrialisation and concentration of capital in the United States, in the post-Civil War era, which laid the industrial basis for the regime of intensive accumulation beginning after the First World War. Two consequences of the accumulation process in this period are to be noted: (1) the rise in the real wage to a level higher than in England at the time⁶⁵ and (2) the extension of the wage-relation over the field of labour (cf. Table 6).

Table 6. Gainful Workers⁶⁶ By Farm and Non-Farm, U.S. 1870-1920 (000's)

	Farm	Non-farm
1920	11,449	30,985
1910	11,592	25,779
1900	10,912	18,161
1890	9,938	13,380
1880	8,585	8,807
1870	6,850	6,075
(from Hist. Stat. of the U.S., series D 75-84, p. 134)		

⁶⁴Ibid., p. 74.

⁶⁵M. Aglietta has a table showing an 'index of average hourly real wages' with the U.S. at 1.08 relative to England as a benchmark for the period between 1890-99 (p. 92). His figures are taken from E. H. Phelps Brown and M. H. Browne, A Century of Pay (1968).

⁶⁶The respondents over the age of ten years in these decennial censuses were asked what their occupation was, not whether they were currently working or not.

Although usury in general has an ancient history, the rapid spread and volume of business of the 'loan sharks' depended on a sufficient development of the wage-relation to create a class of wage or salary earners in the cities who had some margin above bare subsistence to enable them repay a loan. In 1900, although S. Lebergott reconstructs the level of unemployment on the basis of the decennial census at only 1,420,000 workers (or 5%),⁶⁷ Michelman notes that 6.5 million workers were idle during some part of the year, and nearly 2 million of these for at least a one-third of the year.⁶⁸ As might be expected from these facts, the clientele of the 'loan sharks' were almost entirely the poorer middle class of salaried workers, who had more dependable employment. This remained true even up to 1923, when Clarence Hodson, founder of one of the two major present-day credit finance companies,^{the} Beneficial Loan Society (founded in 1914), published some figures describing the 'typical' clientele of the credit finance company in one month in New York City:

Clerks 247, Post-office Employees 245, U.S. Employees 95, State Department and Court Employees 24, City Department and Court Employees 177, N.Y. County Employees 14, Fire Department 198, Police Department 114, Proprietors and Partners 344, Managers 67, Secretaries and Stenographers 44, Foremen 40, Agents 33, Salesmen 113, Factory Operators 81, Machinists 34, Inspectors 33, Tailors 39, Artisans 24, Pressmen, Compositors, etc., 108,

⁶⁷Historical Statistics of the United States, Series D 85-86, p. 135.

⁶⁸Michelman, op. cit., p. 106.

Teachers 18, Doctors and Dentists 15, Writers 15, Telegraphers and Dispatchers 18, Bookkeepers and Accountants 64, Conductors 3, Misc. 222.⁶⁹

When the progressive social reformers and social workers, under the leadership of the Russell Sage Foundation, discovered the extent of ordinary people's need for small emergency loans, securable only by personal possessions or wage-incomes, their anti-'loan shark' efforts were soon redirected from suppression and illegalisation to programs of legislative reform, regulation and legitimation of these businesses.⁷⁰ One incident is illustrative of the use-value aspect. When a series of campaigns was launched in 1911 in New York City by Arthur Ham, the principal agent of the reform movement under the auspices the Russell Sage Foundation and the Provident Loan Society, the New York Globe reported that of 300 'loan-shark victims' (some of whom had been held in debt for up to five years) who were encouraged to bring their case to court, nearly all had gone into debt for burial expenses and doctors' fees.⁷¹

The early history of personal loans, which were borrowed for specific emergencies, suggest very clearly the existence of use-value grounds for the role of credit in the maintenance and reproduction cycle of labour-power. The subsequent history of credit consists of the differentiation of the needs covered by these small emergency loans into different kinds of insurance (e.g., life, medical, etc.),

⁶⁹Ibid., p. 186-7. Originally from Clarence Hodson, An Adequate Industrial Loan System Needed by the Masses (New York, 1923), pp. 4-5.

⁷⁰Ibid., p. 74.

⁷¹Ibid., p. 124.

consumer installment credit, credit card purchases, personal loans from banks and other financial institutions, and the extension of these to the mass of wage-earners. The phenomenon of credit, however, has certain peculiar properties from the point of view of the value analysis of the cycle of reproduction of labour-power. The discussion which follows is aimed at determining whether such credit transactions are better understood in value terms as a component element of the cycle of the reproduction of labour-power or as something external and contingent.

A connection can be seen between the low value of labour-power, held to a level barely above subsistence, and the demand for these kinds of small, short-term loans to cover contingencies not provided for through the wage-relation. Actually, at least a small margin had to exist for there to be a basis for the lending business. Otherwise, there could be no expectation of such loans being repaid. This, of course, was why lenders initially limited themselves to the hard-up middle class of salaried workers and hardly considered hourly manual workers until the 1930s. Conversely, in the postwar period, the small personal loans for family emergencies, such as funerals, medical expenses, declined to relative insignificance as the basis for the credit finance business (~~the~~ direct descendant of the small loan industry). Such needs can now be covered either directly out of income and accumulated savings or through insurance, which is now a common element of the standard of living (either at the employer's expense as part of the wage-packet or through direct subscription). Personal credit has shifted mainly to the area of facilitating the purchase of the larger commodities for consumption.

If we consider how consumer credit enters into the relation between consumption and the reproduction of labour-power, we see immediately that credit constitutes a second-order phenomenon. It results in a doubling of exchange-relations relative to the purchase of the requirements of labour-power. If the two exchange-relations are fused in the case of a purchase on credit, they ~~are~~ clearly distinguished in the case of a loan as the difference between obtaining and using a loan in making a purchase.

In addition, credit clearly raises the cost of the reproduction of labour-power by adding an interest charge on the use of borrowed funds for the use-values obtained through the exchange process. Sometimes the difference appears directly as the distinction between cash price and credit price. This additional indirect cost bears no relation to the nature or value of the use-value purchased; rather, the interest is regulated by the loan's size, maturity and risk to the lender. Since the principal of the loan is subject to exact repayment, there is ideally no creation or destruction of value involved in its participation in the process of the reproduction of labour-power, and only the element of interest poses an issue. The need or relevance of an interpretation derives from the following consideration: Insofar as the payment of interest on all forms of credit has become a normal, i.e. 'necessary', element of the reproduction of labour-power, then its claim on a portion of the wage must either be grounded in some increment to the value of labour-power, or the value theoretic account of the wage-determination process must be modified.

Some idea of the theoretical ramifications may ^{be} obtained from considering what interest pays for. We treat this as consisting of two elements: the administrative cost of servicing the loan transaction

and profit.⁷² J. O'Connor reckons that in 1975, roughly half the total labor in U.S. banking and insurance served individual consumers.⁷³ In his view, financial services in all forms for workers and the salariat have become essential elements of the social reproduction costs for labour-power.⁷⁴ While he does not actually provide an argument for this position, it is clearly related to his proposed revision of the concept of the value of labour-power.

It makes a difference to the analysis of the role of the interest element in consumption whether the service labour corresponding to the administrative cost of providing credit to the class of wage-earners is reckoned as productive or unproductive labour. If it were reckoned as unproductive labour, as Marxists have generally done with respect to all the financial aspects of the system of commodity exchange, then the payment of interest would not correspond to an exchange of value. It would have to be reckoned as a surrender of value, i.e. a form of levy, in this case by the wage-earner. Without value as the basis of this transaction, the regularisation of interest as a normal element of consumption expenditure would entail that the portion of the wage which covers interest payments could not be accounted for through any use-value connection to the reproduction of labour-power (as in an embodied labour view of the labour theory of

⁷²i.e., we leave out of account the element of compensation for risk, which, if the compensation were perfect, would consist of a self-cancelling transfer between borrowers.

⁷³J. O'Connor, op. cit., p. 158.

⁷⁴J. O'Connor, Accumulation Crisis (New York: Basil Blackwell, 1984): "Financial charges, administrative expenses, etc. . . should be analyzed as socially necessary costs under modern capitalist conditions of production and distribution rather than as deductions from surplus value." (p. 87).

value). The alternative 'abstract labour' approach, on the other hand, would allow interest to be construed as an implied value condition imposed through the monetary mediation of the reproduction of labour-power.

Treating financial service labour as productive labour, as J. O'Connor suggests, raises an obvious problem of identifying the commodity which is the object of exchange. The idea of the loan itself as a commodity, whose price is the interest paid on the principal, was definitely rejected by Marx, who differentiated a loan transaction from an exchange of values and clearly believed that the phenomenon of interest was distributional in nature. In his account, interest only has the appearance of being a price. If the interest were to be accounted for as payment for the service provided to the borrower, then the charge for the putative service *should* vary ~~not~~ with the size of the loan, rather than the labour involved in providing the service. Nevertheless, a more differentiated view of interest can be invoked in support of treating service labour of this type as productive labour.

If financial service labour is reckoned as productive labour, then it can be accounted in value terms as corresponding to the unavoidable administrative expense of executing the loan plus surplus labour, taking ^{into} account that interest is also subject to the redistributive effect of the formation of the general rate of profit. The analysis of the value of labour-power can then proceed analogously to the role of other commodities in the reproduction of labour-power. If service labour in this form is not reckoned as productive labour in this way then the additional element of cost to the reproduction of labour-power cannot be interpreted as an additional element of value incorporated into labour-power, but only ^{as} an additional monetary condition structured into the normal living standard. While the latter

is an acceptable form of analysis in the 'abstract labour' approach, we note that the value connection arises only by virtue of money as the general representative of abstract labour, and not the particular labour involved. This generalised connection to value through the money form, rather than the labour associated with the commodity, is closer to the 'variable capital' version of the abstract labour approach (i.e., A. Lipietz, 1982) than that of U. Krause (1982) in which the value of labour-power is constituted out of productive labour.

There are other aspects to the phenomenon of credit which affect our conception of value in the cycle of reproduction of labour-power. Credit in the form of installment purchases implies a curious temporal disjunction between labour-power's access to use-values and the payment of their value. A theoretical choice is implied between the value of labour-power constituted out of the value incorporated in the use-value itself (as, perhaps, in a naive version of the labour theory of value) or through the payment for the use-value. The temporal pattern is different. However, the temporal aspect is ~~an~~ an issue to be considered ^{even} without credit in that the alternative depends on a process of savings for some period prior to the purchase of commodities which ^{are} not immediately obtainable out of current income.

The empirical relations are interesting to consider. Without credit, payment would be coincident with the acquisition of the use-value, which leaves the aspect of the life of consumer durables to be considered. With credit, the time-curve of actual payments for the two principal commodities around which is built the conventional living standard, the house and the automobile, are spread over the time-curve of their use, while differing from it.

We see this, for example, in the average term to maturity of new mortgages in 1983, which were running 26.7 years for new single-family homes and 25.9 years for existing ones.⁷⁵ Relative to the average age of first-time buyers at 28.9 years, the process of purchasing a home is somewhat shorter than the working life of labour-power with a conventional retirement age of 65 (for men). For an automobile, the term to maturity for installment purchases stands now at the standard 48-month loan for a new car from a commercial bank or the average term of 48.3 months for a new car and 39.7 months for a used car from auto finance companies.⁷⁶ The payment period, which has lengthened over the years (36 months before 1983), may be compared to the duration of its use. Some indication of the rough relation between the two is the average of 3-1/2 years that trade-ins originally purchased as new cars were owned in the late 1960s, which is now likely be longer.⁷⁷ The financial cycle is clearly not derived from the life of the car itself as is evident from the fact that, at least in the late 1960s, automobile trade-ins which were originally bought used were retained by the owner for about the same length of time (3.9 years in 1969) as were new cars.⁷⁸ Moreover, the average age of automobiles on the road was about 5-1/2 years (in 1970), which has

⁷⁵Statistical Abstract of the United States, 1985 (Washington, D.C.: USGPO, 1984), No. 1329, p. 740.

⁷⁶Federal Reserve Bulletin, Vol. 71 No. 7 (July 1985), table 1.56, p. A41.

⁷⁷G. Katona, 1970 Survey of Consumer Finances (Ann Arbor, Michigan: University of Michigan, 1971), table 4-6, p. 58. Unfortunately, I lack more recent data as I write this.

⁷⁸*Ibid.*

lengthened over the 1970s to 7.4 years in 1983 and about 1 in 6 automobiles in use is over 12 years old.⁷⁹

This aspect of the discussion of credit reveals the specific financial dimension to the cycle of reproduction of labour-power. Payment on the value of the longer-lasting commodities has a different temporal rhythm or cycle than their life as use-values. Furthermore, through the market for second-hand goods, the same commodity moves from one individual to another with a depreciated value. The time dimension of the reproduction of labour-power introduces a new element of complexity for a detailed understanding of the process in value terms, like that of fixed capital in the analysis of production.

Two special forms of financial intermediation, which could almost be considered a third order relation to commodity exchange, have become the main area of business of the modern consumer finance industry. One of these, credit consolidation is a form of financial service in which the credit agency covers the consumer's existing debts with a loan, which is then paid off to the credit agency. It could be considered a step taken before bankruptcy. The other form, credit life insurance, is a nearly universally attached to installment purchases and consists of the insurance taken out by the seller or holder of installment credit to cover default on outstanding installment payments. The premium cost is added into the credit transaction, which thereby figures into the cost of credit as an element of consumption expenditure.

⁷⁹Statistical Abstracts, op. cit.

Credit for personal consumption has evolved from its early form of small emergency loans taken out for family emergencies into a normal component of the structure of ordinary wage-earners' living standards. Some of the needs formerly covered by recourse to the 'loan sharks' have become separated off and covered by non-credit forms, such as insurance, publicly supported medical assistance for the elderly and the poor, etc. Insurance, of course, forms another major topic in the realm of consumption, which we do not cover in our discussion. Meanwhile, the use of personal credit, whose extension to the larger part of wage-earners is based on the relative stability of money wage levels and employment, has evolved towards advancing consumption rather than covering the shortfall between wage income and life contingencies. At first, in the postwar period, the specific aspect of consumption advanced in this way was the ownership of major commodities, the house and the automobile, whose possession as property had been much more restricted previously, but the further evolution of credit has brought major expenditures in the service sector into the purview of the use of credit for consumption; these include personal loans for education, vacation travel, and the like.

Analysis of the phenomenon of credit within the reproduction cycle of labour-power seems to point up the need to distinguish between value represented as a directly productive relation (as in a labour embodied version of value theory) and the monetary mediation of value relations emphasised by the 'abstract labour' approach. This appears particularly true with respect to the temporal divergence between the consumption of use-values in the case of consumer durables and the payment of their value. It is the latter which governs how living standards enter into the value of labour-power as wage-determinant. The interest element as a component part of the

cost of living associated with the use of credit for consumption has a similar effect on the value of labour-power question if we follow the conventional Marxist view of financial services as unproductive labour.

SUMMARY

Two attitudes are evident in Capital on the role of workers' consumption in the theory of value. When Marx considered the role of workers' consumption from the point of view of the social relations of production, he took a very narrow view of the workers' possibilities. 'Individual consumption', which he distinguished from the use of means and materials in the process of production and referred to as 'productive consumption', serves towards the "production and reproduction of the capitalist's most indispensable means of production."¹ He noted that from capital's point of view, as well as the political economists of his day, anything in excess of the minimum necessary for this function is "unproductive consumption." Marx made very clear his dim view of this form of discourse, commenting to the effect that "the individual consumption of the worker is unproductive from his own point of view, for it simply reproduces the needy individual," whose role in life is limited to producing wealth for others.²

However, when Marx discussed the level of consumption attained by the worker, he allowed that a rising demand for labour-power could create a degree of liberality in the condition of the worker:

¹Capital Vol. 1, p. 718.

²Ibid., p. 719.

"A larger part of the worker's own surplus product, which is always increasing and is continually being transformed into additional capital [under these expansive conditions], comes back to them in the shape of means of payment, so that they can extend the circle of their enjoyments, make additions to their consumption fund of clothes, furniture, etc., and lay by a small reserve fund of money." (Capital Vol. 1, p. 769)

This liberality is subject to an implicit limit, imposed by capital's desire for surplus value:

"Labour-power is not purchased under this system for the purpose of satisfying the personal needs of the buyer, either by its service or through its product. The aim of the buyer is the valorisation of his capital. . . . The production of surplus-value, or the making of profits, is the absolute law of this mode of production. Labour-power can be sold only to the extent that it preserves and maintains the means of production as capital, reproduces its own value as capital, and provides a source of additional capital in the shape of unpaid labour. The conditions of its sale, whether more or less favourable to the worker, include therefore the necessity of its constant re-sale, and the constantly extended reproduction of wealth as capital." (Capital Vol. 1, p. 769)

Whether in a liberal or restrictive manner, the regulation of the workers' conditions of existence was described by Marx on the basis of their dependence on the wage-relation as their means of existence. While a great deal of writing exists on the cultural plane of the phenomenon of mass consumption in the advanced capitalist societies in the era of 'affluent' capitalism, it is an area only reluctantly entered into by Marxists from the political economic point of view. Partly, this results from the primacy accorded by Marxist theory to developments in the realm of production as the starting point for the analysis of class relations and of the vicissitudes of the capitalist accumulation process. Partly, as well, the underdevelopment of Marxist political economy with respect to the sphere of consumption reflects Marx's own attitude. He scarcely discussed its content or developmental tendencies, being content to consider its function in the total reproduction process (the reproduction of labour-power and the realisation process) at the interface between production and

consumption. Consequently, analysis of the sphere of consumption, the site of significant developments relating to the overall accumulation process, can hardly be undertaken without extensive theoretical development, especially with respect to the Marxist theory of value.

The analysis of consumption begins with the wage-relation, which is the basic social relation between capital and labour. From the fact that it represents the union of labour's mode of existence with the capitalist form of the production of the means of existence, we are led to the concept of the value of labour-power as the key mediating link between the capitalist system of production and the sphere of consumption. In this first part of the thesis we have explored the concept of the value of labour-power in both the specific form given by Marx in the 'cost of production' version and its articulation with the rest of the theory of value. The core of the concept in his 'cost of production' thesis is capital's ability to secure its condition and motive for existence, i.e. surplus value, through the extension of the commodity-form to labour itself. While the existence of surplus value depends only on a difference between what labour produces for capital and what labour receives back in the form of the wage, the 'cost of production' thesis provides a specific formula for the level of the conditions of existence of labour under this system. It holds that wages tend to the level necessary to reproduce labour-power, which is expressible in value terms as the value of labour-power. Two conceptual issues stand out when considering the use of Marx's value of labour-power concept: (1) whether a value interpretation is applicable to labour-power, and (2) whether the 'cost of production' version is the correct version to use.

Certain ambiguities were encountered in thinking through the concept of the value of labour-power as presented in Capital. The cost of production approach, favoured by Marx, offers an explanation for labour-power's possession of the attribute of value through the commodity form of labour's subsistence requirement, which may be viewed as adding a value condition to the maintenance and reproduction of labour-power. While the value of labour-power notionally defines a minimum standard of the wage, various interpretations can be attached to the requirements for the reproduction of labour-power. The concept of 'necessity' proves to be very elastic in Marx's 'cost of production' thesis.

While Marx interpreted the low level of the wage which could be observed in certain periods of capitalist development in naturalistic terms as the minimum necessary subsistence for the reproduction of labour-power, his general conception of the regulation of the wage through the value of labour-power depended on the notion of the socially and historically given needs of the labourer. In the context of his times, it is quite understandable that Marx left it at that and did not go on to analyse the content or the tendencies within the sphere of individual consumption. However, as the level of consumption or the standard of living rises, the attenuation of meaning of the qualifiers 'subsistence', 'necessity', and 'requirement' threaten a peculiar inversion of the relation between capital and labour in the wage-determination process. Judged solely in terms of the level of consumption which passes under the rubric of the necessary standard of living of the worker, it begins to make more sense to think of the necessary wage as the value of labour-power capital is forced to pay for labour-power, rather than the level the maintenance of labour-power is confined to. In other words, the power to determine the

'cost of production' of labour-power passes over from capital to labour's side of the wage-relation.

Substantively, there is much to be said for substituting this inverted form of the concept of the value of labour-power for the original, e.g., as an internal evolution of the form characterising the development of 'affluent' capitalist societies. It would provide the basis for incorporating the dynamic of class struggle into the value of labour-power concept as J. O'Connor (1984) proposes, whose critique is directed at the 'economistic' tendency of Marx's 'cost of production' thesis. On the other hand, complete abandonment of the original conception could also lead to an excessively voluntaristic interpretation, in which the wage is interpreted as purely the result of a distributional struggle as in certain neo-Ricardian interpretations of the theory of value.

The inverted version obscures two aspects concerning the position of wage-labour, which are expressed in the 'cost of production' thesis: First, for the wage represented as the mode of reproduction of labour-power, a higher standard of living preserves labour's dependence on capital, since ^{the satisfaction of} primary needs are as contingent on the sale of labour-power as before. Second, the notion of a socially determined standard of necessity needs to be considered in terms of the specific characteristics of the form or mode of consumption and the extent to which necessity is socially structured into the practices of individual consumption.

However, the validity of any value of labour-power concept depends not only on how well it fits the phenomena, but also on its interconnection with other value categories. The traditional definition, which draws directly on Marx's 'cost of production' thesis by attributing a determinate effect by the value of the elements of the

workers' subsistence on the price of labour-power, is found to be a contributing factor to the divergence between prices and values in the transformation to prices of production, which has traditionally created a stumbling block for value theory as a whole. While the extended discussion of variants in the literature of the transformation problem did not univocally point the finger at the definition of the value of labour-power as the source of the quandaries of value theory, it revealed an internal difficulty for the value of labour-power concept when it relates wages to the value of labour-power on the 'cost of production' basis.

Distinct from the traditional approach to the value of labour-power is the 'abstract labour' version of A. Lipietz (1982) and others, who explicitly abandon the reproduction of labour-power basis in order to justify identification of the value of labour-power with the value represented by the wage (= variable capital) as a means of resolving the traditional transformation problem. While shifting the definition of the value of labour-power to what capital must pay to obtain labour-power will invert the previous conception, it does not actually exclude the substance of the 'cost of production' thesis. On reflection, it turns out that the 'variable capital' version is actually agnostic on the question of what determines the level of the wage. The change removes only the specific value-theoretic form of the thesis which Marx employed, so that this version of the value of labour-power leaves open the question whether the wage is related to consumption and the reproduction of labour-power on the basis of necessity. Nevertheless, it is an alternative conception in the sense that it is not definitionally tied to the worker's minimum standard of reproduction.

The examination of the value of labour-power concept in Part 1 turned up two candidates as the value theoretic link for a Marxist political economy of developments in the sphere of consumption. The theoretical value of the value of labour-power concept depends, however, on the resolution of two other traditional quandaries of the theory of value, the problem of heterogeneous labour and the domestic labour debate. The issues raised by these long-standing debates directly affect any analysis conducted through the concept of the value of labour-power because ^{of} their connection to the three constituent 'moments' which Marx distinguished in the process of the reproduction of labour-power: the maintenance of the labourer, the formation of his or her skill, and the reproduction of labour-power in the next generation.

The heart of the problem contained within the skilled labour debate was found to be the question of how a Marxist theory of value, which posited labour as the common measure of value, handled the self-evident heterogeneity of labour. While the problem of heterogeneity proved to be no barrier to the theory of value in terms of its validity, as Böhm-Bawerk's critique claimed, there remained the problem of demonstrating how the evident differences in wages and exchange-value of commodities produced by different types of labour could be incorporated into value theory. The classic solution of Hilferding and its modern revivals attempt, unsatisfactorily, to reproduce the exact form of Marx's answer on the skilled labour question, which is set in terms of a single proportionality relation covering both the value created and the value of labour-power. A paradox was found to be inherent to any solution attempting to account for both sets of differences on the basis of a single set of value relations, such as the labour of formation or education. The

difficulty in this form of solution is that either the labour which 'produces' the skilled labourer may be treated as fully valorised either in the wage, in which case no surplus value is realisable, or in the exchange value of the product of skilled labour, in which case the wage must be under the value.

Meanwhile, an examination of the alternative proposed by S. Bowles and H. Gintis (1977) revealed two useful insights into the nature of the problem. First, they demonstrated that a theory of value based in the labour of production can be derived without the reduction of heterogeneous labour to common (homogeneous) labour terms. Second, in substantive terms, the phenomenon of heterogeneity is broader than the question of skilled labour. A distinction was proposed in the discussion, on the basis of Bowles and Gintis' results, between the commensurability of different types of labour as a theoretical condition affecting the validity of the theory of value and the competing claims of homogeneisation and segmentation (heterogeneity) as real processes affecting the conditions of existence of labour. The interdependence of these two different problems of the homogeneity of labour was traced back to Marx's use of the real process (e.g., deskilling, etc.) as grounds for the simplifying assumption of the homogeneity of labour in his value theory, extended to include skilled labour as a multiple of unskilled or simple labour by means of the additional assumption of the equalisation of the rate of exploitation to ground his dual proportionality claim.

While Bowles and Gintis' work makes it possible to distinguish the two homogeneity conditions, their non-aggregative approach is less satisfactory as a method of formulating the theory of value in that it only provides a means of avoiding the consequences of an embodied labour methodology, without demonstrating what is meant by the claim

that the commensurability of labour as value (abstract labour) is established in the exchange process. At best, they give an abstract labour interpretation to the neo-Ricardian embodied labour methodology as a means of avoiding the strictures of the neo-Ricardian critique of value theory.

It was discovered, however, that the commensurability of labour as value (abstract labour) could be expressed in the formally developed 'abstract labour' of approach of U. Krause (1981) as a relation induced through the process of commodity exchange, independently of any homogeneisation of labour within the sphere of production. The result was a form of the theory of value in which the value of labour-power, i.e. the question of wage differences, can be represented independently of the question of ^{the} value creation aspect, i.e. the commensurability of different types of labour as abstract labour quantities. The latter is derivable through the process of commodity exchange as, in effect, a rate of exchange between different concrete labours in production.

One consequence of this approach is that surplus value need not be the same for different types of labour, whether reckoned as the difference between the wage and the value created as in A. Lipietz' and D. Foley's method or as the difference between workers' consumption and value created as in U. Krause's method.

With the value of labour-power (the wage differential aspect) free of its theoretical function as the link between the wage and value creation aspects of the problem of labour heterogeneity, as in Marx's dual proportionality solution, the question of what accounts for the multiplicity of types (and values) of labour-power is left quite open. The wage question must be addressed on its own as a substantive question within the theory of value. After discussing the multiplicity and variability of wage-forms in the context of labour discipline (i.e.,

the conversion of labour-power into productive labour), a dual conception of the real processes of the heterogeneity and homogeneity of labour was considered. Rather than thinking of the two processes as mutually exclusive principles, an alternative was defined in which the two are coordinate aspects of the standardisation of labour within a complex articulated division of labour structured in terms of positions (i.e., jobs) rather than persons. The standardisation of labour within the division of labour reflects the indifference to the particularity of social ties inherent to the wage relation as an instance of commodity exchange generally. Its condition of possibility at the level of the labour process is the reduction of productive labour to part tasks, the routinisation of work, etc., which provide capital with continuity and flexibility in production. These considerations lead us to a conception of the value of labour-power which can be as finely graded as the job held by an individual worker. In fact, the analysis can be carried even below this level to the component elements of the wage, suggesting that the value of labour-power concept can theoretically encompass any degree of variability in the phenomena on the production side. Conversely, the mobility of the individual worker between jobs, which implies changes in pay as well as the type of labour, suggests the complexity of the detailed relation between an individual labour-power and its value, as manifested in the wage-package associated with the particular job. Nevertheless, the elements of the relation are inherently standardised, so that the proliferation of forms of the wage-relation is amenable on the production side to analysis in terms of the value of labour-power.

The analytical question of whether and how to apply the value of labour-power concept is, therefore, found to be mainly a problem of the analysis of consumption. Of the two forms of the value of labour-

power concept discussed in Part 1, the question of which one best fits the phenomena under conditions of 'affluence' depends on whether and how the evolution of needs within conventional living standards has absorbed all rises in the general wage level, with the added complication of a multiplicity of types of labour-power at different wage levels.

Without the element of necessity in the relation between conventional living standards and wage differences, the value of labour-power concept cannot be used as a mediating link between production and consumption in the form Marx envisioned (the 'cost of production' version). If Marx's conception of the value of labour-power proves unworkable, the theory of value can 'fall back' to the other version discussed in Part 1, ⁱⁿ which the value of labour-power is tautologically identified with variable capital. While the value of labour-power is thereby disengaged from the problems of analysing consumption, the form of the wage would still present a very complex phenomenon to deal with, as was discussed only in general terms in Part 2, but sufficiently to suggest that the problems could be handled in a number of different ways.

Part 3 began with a brief overview of the domestic labour debate, which pertains to the 'moment' of the (generational) reproduction of labour-power posited by Marx as a component of the value of labour-power. We stated our general agreement with the conclusions of T. Fee (1976) and S. Himmelweit and S. Mohun (1977) from their surveys of the domestic labour debate to the effect that domestic labour, the unpaid labour performed within the household, mainly by women, in the process of consumption, was "separate from, but integral" to the capitalist process of production. Although domestic labour performed outside of any direct relation to capital is

materially implicated in the reproduction of labour-power in both the day-to-day and generational sense and is, therefore, part of the reproduction process of capital taken as a whole, it cannot be counted as either 'productive' or 'unproductive' labour in the value-theoretic sense.

Nevertheless, a common ground as labour exists between labour in the sphere of consumption, i.e. the practical activities of domestic life, which were not considered in Marx's analysis of the process of the reproduction of labour-power, and productive labour performed (and valorised) in the capitalist production process. The boundary between them is a fluid one, with the line of separation determined on one side by the wage-relation and on the other by purchase of commodities for consumption. The fluidity of these boundaries can be viewed historically in terms of the transformation of labour's traditional modes of life through the extension of the wage-relation: the export of labour from the household, feeding the expansion of a separate sphere of production under capital, is mirrored in the commoditisation of subsistence.

Movement across the boundary between the spheres of production and consumption in the opposite direction was also described by means of the notion of 'work transfer', proposed by N. Y. Glazer (1984), to capture the essential continuity of productive activity between the unpaid domestic labour of women and wage-labour. The classic case of the evolution of retailing practices towards self-service was cited as a prime example of this process.

We chose to focus our discussion on a related issue, which emerged out of the domestic labour debate. This concerned the connection between the value of labour-power and the family as the social unit of the reproduction of labour-power: the question of the

value of women's labour-power in the context of the multiple wage family. The rising level of participation of women, especially married women, in wage-labour was interpreted as a process of change in the mode of the reproduction of labour-power, from the single 'family wage' of the male breadwinner (never completely realised) to the dual wage-earning family. Although indications also exist of an erosion of the traditional structure of the family, which may modify the picture which emerged in the discussion, that consideration was set aside inasmuch as the family remains the dominant form of the domestic unit of the reproduction of labour-power.

This change raises a theoretical problem for the value of labour-power concept. The theoretical position heretofore has treated the value of labour-power as an attribute of the individual hired by capital, assuming the family to be the normal social unit of the reproduction of labour-power, but the phenomenon of working mothers/wives poses a double complication from the theoretical point of view: the multiplicity of wage-earners in the family unit and the inequality of wages between men and women.

If, on the basis of women's participation in the wage-relation, we apply the concept of the value of labour-power to them on the reasonable ground that the wage-relation represents a commoditisation of their labour-power no different than for men (albeit subject to discrimination in the labour market), the theory is immediately confronted with a problem in terms of the reproduction of labour-power. In the absence of any theoretical adjustment, the combination of wage incomes in the family constitutes a duplication in the wage's function, though not necessarily a doubling of the level, in the reproduction of labour-power. If the theoretical knot is cut from the other side, and the value of labour-power is defined as an attribute of

the family rather than the individual, the unity of function will be preserved between the value of labour-power and the social form of the reproduction of labour-power, but a complication is created on the wage side by virtue of the absence of a coordinating relation which would allocate the total value of labour-power between two different wage-earners.

The same complication affects the first version in the classic form of the problem of joint products in value theory. There is no inherent difficulty in joining consumption as a joint affair within the family to the single wage-relation under the value of labour-power concept, but the dual (or more) wage mode opens an area of indeterminacy relative to the division of financial responsibility for the maintenance and reproduction of labour-power. However, a resolution can always be considered to exist in practice, which could lie anywhere in the range from a full single family-wage (with, hypothetically, either a male or female wage-earner) to a dual-wage system with equal wages. The observed form, based on the sexual inequality of wages, lies at a point in between, with a corresponding difference in the value of labour-power for men and women.

The effect on incomes (and, therefore, standards of living) of the transition in the mode of the reproduction of labour-power was found to be quite complex. The empirical findings suggested the existence of two superimposed processes of change towards the dual wage-earning mode. One is a compensatory transformation to a dual wage-earning mode, building up gradually over the postwar period and manifested in a fairly stable margin of difference in median family incomes at about 20% higher for the dual wage-earner families. Some evidence was brought in to the effect that a margin on the order of 20%, based on a 60% wage-differential between husband and wife, would place them on

parity with the traditional single-wage families if the additional expenses arising from the wife's employment were taken into account.

Superimposed over the long-term change, however, was evidence of a marked extension of its upward reach into the higher ranks wage-earners in the 1970s. While this second process raises once again the question of differentiation or heterogeneity in the value of labour-power (in connection with the stratification of living standards), some evidence of a stronger connection ^{between} dual wage-earning and the possession of discretionary income among higher income families suggested a non-compensatory process was operating, which would put wage-earning families at the higher end of the income distribution beyond the reach of a value of labour-power argument.

The remaining discussion (Part 4) concerned various topics pertaining to the analysis of the sphere of consumption. They were set in the context of the capitalist accumulation process as analysed in M. Aglietta's theory of regulation. Regulation theory provides a valuable framework for the political economic analysis of the sphere of consumption in two respects. First, Aglietta's concept of the intensive regime of accumulation focusses on the dynamic aspect of the interrelation between production and consumption through the concept of relative surplus value, in which the value of labour-power has a key role. Second, the Regulation framework stresses the role of the integration of the sphere of consumption into the accumulation process as an important aspect of the development of the intensive regime of accumulation.

Relative surplus value provides the fourth element through which the theoretical role of Marx's concept of value of labour-power may be understood. Through this fourth element, which we add to the three 'moments' of the definition of the value of labour-power, Marx posited

a direct and dynamic connection between the spheres of production and consumption. Aglietta makes use of this link to develop his thesis of the emergence of the intensive regime of accumulation as the characteristic mode of accumulation of the period after the Second World War, but originating in the 1920s. It is based in the transformation of the sphere of production to the system of mass production and on the integration of consumption and production through a parallel transformation of labour's traditional mode of life towards the 'Fordist' mode of consumption. The governing principle of the intensive regime of accumulation is described in terms of Marx's concept of relative surplus value: continuously raising the productivity of labour while realising the expanded output through the expanding consumption of the wage-earning class without detriment to the generation of surplus value. The ideal functioning of this relationship for capital would allow for a continually rising surplus value (relative surplus value) through continuous cheapening of the value of wage goods, faster than any rise in the wage level, which would thereby guarantee the necessary investment funds for further increases in productivity. The characteristic effect is a combination of rising real wages with a falling value of labour-power.

The integration of consumption into the accumulation process provided the basis for the generation of relative surplus value by resolving both the need for widening the market for the mass produced goods (the realisation problem) and ensuring the profitability of production through the simultaneous devalorisation of labour-power. This double process is interpreted by Aglietta as having had the effect of creating a relative 'harmony' in the accumulation process between the two great departments of production, Department I for the production of the means of production and Department II for the

production of the means of consumption. The relative evenness of the accumulation process in the postwar period contrasts with the unevenness of the preceding extensive regime of accumulation, characterised by dramatic swings in economic conditions, profitability, employment, etc.

The new 'Fordist' mode of consumption, which initially took shape in the early 1920s, had at the beginning too narrow a social base in the newly affluent salaried middle classes to sustain the momentum of the accumulation process. It was the extension after World War II to include wage-earners generally, i.e. the labour-power directly involved in the mass production of consumption goods, which led to the true consolidation of the intensive regime of accumulation, lasting for the next two decades without major interruption.

M. Aglietta suggested a possibility of empirically observing the long-run rise in the rate of surplus value, which he associates with the intensive regime of accumulation. To this end, he constructed an index of the 'real social wage cost' of production, intended as no more than an indicator of the trend of surplus-value, and not an actual measure. The index related the movement of average real hourly wages to the movement of average hourly productivity (both in index form). It is, thus, a ratio of two indices, intended to display their relative movement. While we were interested in Aglietta's use of the 'abstract labour' framework to ground the use of empirical evidence in value theory in more than an ad hoc fashion, his index seemed to make too strong a claim for the directness of the relation between wages, productivity and surplus value. In the interests of locating the defect, we suggest a modified derivation which preserves both Aglietta's substantive point and the methodological value of his approach. It turns out in our reworking that Aglietta's C-index of the

real social wage cost could not be related directly to the value expression for the change in the rate of surplus value alone; the correspondence between the empirical term and the value terms was somewhat more complicated.

When we turned to the analysis of the sphere of consumption itself under the intensive regime of accumulation, two concepts provided by Aglietta were found to be particularly germane to linking the phenomenon of the stratification of living standards in the sphere of consumption and the problem of the heterogeneity of labour in the sphere of production, discussed in Part 2. These are Aglietta's concepts of the 'constancy of the nominal reference wage' and the 'social consumption norm'.

The concept of the 'nominal reference wage' refers to a characteristic inflexibility of nominal wage-rates under the intensive regime of accumulation. In Aglietta's view, the stability of the monetary wage, in contrast to the changeability of the real wage, is associated ^{with} the evolution of collective bargaining as the structural form of the wage determination process in the intensive regime, which had the effect of contractually fixing nominal wage-levels as much as three years ahead. This stability of the monetary wage is significant insofar as it underpinned the capacity to carry credit obligations, which has been crucially important to the development of a mass market for consumer durables.

In contrast to the earlier 'extensive' phase of the accumulation process, wages under the intensive regime of accumulation were characterised by the disengagement of the monetary, or nominal, wage from the ups and downs of the business cycle. The movements of the business cycle were absorbed instead by changes in the purchasing power of wages (real wages) in a generally inflationary process of

reallocating value between capital and labour. Thus, instability in the overall system continued to exist, but was deflected towards the continual alteration of the relation between value and money, or the 'monetary expression of the working hour' in Aglietta's terminology; meanwhile, the inflexibility of nominal wages and relative security of employment provided conditions that ensure the ability of the mass of wage-earners to carry credit obligations and a steady growth in the social consumption norm.

Aglietta's concept of the 'social consumption norm' expresses both the uniformity of a mode of consumption based on the reproduction of labour-power through the consumption of standardised, massed produced commodities and its differentiation into status groups. The transformation entailed more than the material dependence on capital associated with the substitution of commodity forms of subsistence for domestically produced use-values, but a reorientation of the worker away from traditional activities based on ties of obligation and sociability towards others towards a socially self-sufficient mode of existence based in the possession of two major commodities, standardised, mass-produced housing and the automobile. While Aglietta's concept of the social consumption norm functions as a theoretical equivalent to Marx's 'historical and moral' element of the worker's traditional standard of living, it also shifts the analytical role of the value of labour-power from a given, static condition in the theory of value to a dynamic element in the intensive regime of accumulation. The social consumption norm has not only evolved in terms of material content and level, but is also subject to social differentiation. This differentiation of consumption into a multiplicity of living standards is grounded in the value of labour-power insofar as the means for the continual renewal of status distinctions is provided

by the hierarchy of wages, which is in turn rooted in the differential treatment of different types of labour-power within the division of labour. The notion of the social consumption norm serves as a basis for a differentiated value of labour-power concept in two respects. A living standard becomes a requisite standard for the maintenance and reproduction of labour-power as a representation of social position through standards of consumption and through a process of routinisation as acquired habits in the maintenance cycle of labour-power.

While Aglietta attaches great weight to status marking in explaining how the value of labour-power can become a differentiated phenomenon, no specific study of consumption practices supports his concept of the 'social consumption norm'. Many questions pertaining to the relation between the practices of individual consumption and the cycle of the reproduction of labour-power are left open. More specific understanding of the structuring of necessity into the practices of individual consumption can only be suggested at this point. The central issue on which our study of the application of the value of labour-power concept to mediate the analysis of the sphere of consumption turns is the distinction between necessity and non-necessity in consumption, which is crucial to the fullest sense of Marx's 'cost of production' conception of the reproduction of labour-power as a commodity. It is a question of the extent to which the logic of the value relation asserts itself over the sale and reproduction of labour-power in the face of the evident contraindication of the enormous rise in real wages and living standards of the past century.

Status differentiation of consumption patterns can be thought of as having different effects on the concept of the value of labour-power. It would make a difference, for example, if we distinguish

status from income as governing factors in consumption, but this depends upon being able to define standards of adequacy in consumption separately from what income differences make possible. Income in excess of this level would then be identifiable as a genuine surplus over socially-determined requirements. Conversely, if the 'necessary', in the sense of customary, standard of living tends generally to expand to whatever the income level will support, then status differences merely reflect income differences, implying that status norms are no more than averages.

In either case, the same basic social pattern of consumption will result in the sense that a continual upward readjustment of norms (to rectify distortions in status position arising from past wage movements) and a uniform upward drift in customary living standards associated with a general rise in real incomes will both yield a social scale of consumption. The value theoretic interpretation, however, will depend on whether the prevailing 'law' of individual consumption is truly stratified or completely atomistic. The process of wage-determination, for example, may be found to have an independent component of status differentiation (e.g., the pay ladder) underpinning inter-sectoral rivalry in wage-demands; or, by contrast, the process may be more uniform with the pressure of needs on income clustered around demographic differences, such as the greater financial pressures experienced in formative stage of the family life-cycle which combines the lower wage-levels of younger household heads with a growing burden of family expenses.

We have made only a beginning in considering how the construction of a concept of a differentiated value of labour-power might be derived from a detailed study of how financial obligations are structured into ordinary consumption expenditure practices. We

considered in particular how a common use-value structure underpins living standards which are widely different in value terms. The social consumption norm, as Aglietta suggests, is governed by two major commodities - the house and the automobile - whose standardisation of form (style) and mass production created the possibility of their forming the general material basis of labour's mode of existence. It is fairly obvious that a large portion of consumption expenditure is tied in to these two commodities, whose possession structures into the standard of living, at most levels, a sizeable portion of total expenditure for continuing payments and for maintenance and operating expenses. Much status differentiation, in turn, can be attributed to differences in the quality (and consequently price) of these two items, which further entail differences in the level of maintenance expenditure - e.g., for a larger house. Finally, insurance can be viewed as a second-order phenomenon within consumption, adding yet another layer to the maintenance cost of each major use-value element, including the maintenance of the body vis à vis medical/dental and life insurance. Obviously, some variation in the structure of the consumption norm exists, as in the lower frequency of home and automobile ownership at lower incomes, but this would not alter the general picture.

The real difficulty is the relation between aspects of consumption which are not necessary to the reproduction of labour-power. While the argument is sometimes made that general access by wage-labour to the restorative and compensatory aspects of former or initially luxury items can be taken to define their function in the reproduction of labour-power, and therefore constitute part of necessary consumption and the value of labour-power, this is not the only argument possible. From a theoretical point of view, the compensation thesis causes the

'cost of production' version of the value of labour-power to become indistinguishable from the variable capital version so long as no distinction is possible between the necessary and surplus elements of consumption.

Somewhere along the income curve the issue of a surplus element in consumption becomes unavoidable, but there seem to be no general grounds for expecting it to ^{be} distinguishable in kind from the socially-determined necessary elements of consumption. On the other hand, the theory requires a category of surplus consumption, or 'luxuries' traditionally speaking, to deal with the existence of income from property, i.e. surplus value distributed in the form of personal revenues, which naturally concentrates at the upper end of the income distribution and, for the few, supports their entire existence without the necessity of selling labour. As consumption, there may be a difference in scale and quality, varying with the level, but not with the kind of income. Working downwards from this point, one encounters the inflated salaries of the upper end of the pay-hierarchy of managerial and certain professionally qualified staff, which is generally not considered reconcilable with the value of labour-power concept, either in terms of level or function in production.

To categorise any portion of consumption over the whole range of living standards as a surplus over the requirements for the reproduction of labour-power will obviously have an impact on the deployment of the value of labour-power concept. Modifying the theoretical account to acknowledge the emergence of a surplus element in consumption as a general phenomenon, as a by-product of the 'Fordist' mode of accumulation, introduces an area of potential autonomy for labour within the wage-relation (in the sphere of consumption) to the extent that incomes are not absorbed by already

existing needs. The value theoretic conception of the reproduction of labour-power will then incorporate an element of struggle over the disposition of the social surplus between the extension of the level of consumption and its retention as surplus value for accumulation (or consumption by the agents of capital).

A foray was made in the discussion in the direction of distinguishing between elements of consumption which become part of the 'necessary' standard of living, tied to the maintenance cycle of labour-power, and a surplus element in which labour realises a possibility of self-development (the enrichment of individual needs). We distinguished for this purpose between expenditures on necessities in the conventional sense, i.e. housing, transportation, food, clothing, etc., ignoring differences in the level of expenditure or quality (interpretable as status difference), and the broad category of use-values, including further education, recreation and entertainment, which are optional in the sense that their absence should not disturb the maintenance cycle of labour-power.

The area of individual autonomy provided in this form was found to have steadily expanded for the whole income range in the period of 'affluent' capitalism, but is nevertheless quite limited in two respects. First, the small size of these 'surplus' elements in consumption overall implies that only a very small contraction in income or a rise in the cost of living would eliminate this margin over necessary expenditures. Second, the condition of dependence on selling labour-power is unaffected by it, except for those living solely on a wage income who have a substantial enough margin to accumulate funds, with some sacrifice in living standard, to set up their own business (not uncommon in the U.S.).

We considered the implication of a margin of surplus consumption above the level necessary merely to maintain labour-power (at different living standards) for the 'cost of production' conception of the value of labour-power. We felt that the theoretical framework would tolerate a margin of either indeterminacy or even a definitely identified element of surplus over requirements. The grounds for this view is that a margin of surplus might be sufficient to relieve the immediate pressure of necessity, but leave it not far below the surface. The uneven distribution of this margin of comfort over any given category of labour-power would mean that some part of that sector would always be exposed to the pressures of the cost of living in an immediate way, which may figure into the analysis of wage struggles in sectoral terms.

The margin of surplus over existing requirements in living standards can be viewed from another perspective as the margin of development in ^{the} evolution of consumption under advanced capitalist conditions. Each of the specific forms incorporated in consumption, such as insurance, credit, etc., which have become normalised aspects of the maintenance of wage-labour, poses its own particular problems of interpretation within a value-theoretic framework. This is not only a question of the appearance of various forms of financial intermediation provided on an individual, private basis within consumption, such as personal savings, insurance, credit, pensions schemes, etc., but also concerns the the role of the state as an intermediary in the reproduction of labour-power through taxation, education, social welfare, as well as the legal regulation of standards within the field of consumption. No less intriguing in the context of the 'affluence' of the advanced capitalist societies is the impact of the sheer accumulation of material possessions on the meaning of the

notion of the 'standard of living', normally pegged to income. Only a preliminary foray was made into the broad field of analysis presented by the sphere of consumption through a separate treatment of the development of the use of credit for consumption and its implications for the value theoretic analysis of the reproduction of labour-power.

The chief peculiarity of credit from the point of view of the relation of labour-power and value is the access to consumption which is provided by it from outside the wage relation. The provision of credit oriented to consumption has become generally available to wage-labour since its introduction in the 1920s in conjunction with the development of the automobile and other consumer durable goods industries, which were quite dependent on the market widening effect of this massive introduction of the producing class into the position of owning the products of their labour beyond their immediate means. Although the credit phenomenon was discussed by Marx, credit for consumption hardly existed in his time. Nevertheless, much of his analysis of the credit system appears to be quite germane to our discussion.

Credit is directly involved in the circulation of commodities, which from the point of view of capital facilitates the realisation phase of its circuit of value. It is described in the Grundrisse, for example, as a 'contrivance' of capital whose fundamental determinant, i.e. reason for being, is to achieve "circulation without circulation time." A loan, on the other hand, begins with money not otherwise employed and as such belongs to the fund of potential capital belonging to the capitalist class as a whole, which Marx has described as the concrete form of existence of capital-in-general. The two transactions are distinguished by whether they constitute a relation of equal value exchange, and in Marx's view, a loan did not constitute an act of

exchange at all. While the difference from a formal point of view is quite striking, it turns out to make little difference in practice despite the fact that a purchase based on credit and a loan of a monetary sum engage different value circuits.

The merging of the two forms of credit can be seen, for instance, in the equivalence in practice between financing the purchase of an automobile through a personal loan from a bank and purchasing the automobile on an installment plan from a dealer. The fusion of the two forms becomes even more evident when it is considered that a car dealer normally sells the installment purchase contract to a sales finance company or other financial intermediary, with the effect of completing the commodity's realisation process and transferring labour's indebtedness to the financial intermediary. If there is no difference between the two forms from the point of view of consumption, a flow of funds analysis should be able to reveal a difference from capital's point of view between the temporary diversion of potential money capital towards consumption (the loan) and a straight hire-purchase arrangement.

If we consider the way in which credit enters into consumption, we see it immediately as a second-order phenomenon, which has the effect of ²_A doubling of the exchange-relations involved in a given purchase of labour-power's requirements. A loan makes the two aspects distinct. Since the principal of the loan, which is the larger part of the loan transaction in value terms, is subject to exact repayment, there is ideally no creation or destruction of value involved in its participation in the process of the reproduction of labour-power. The secondary exchange would appear to be self-cancelling and therefore should make no difference to the value of labour-power, except for the temporal factor - that the value which

labour-power absorbs in the process of consumption expands for a stationary wage-level to the extent that the level of consumption funded by debt grows. It is not the level of consumer debt, but the growth in this level which expands consumption relative to wage-income. At the same time, this also is not the full story, inasmuch as it has been noted, since the beginning of the 1970s, that families experiencing an increase in income will split the added income between greater indebtedness (e.g., installment purchase commitments) and savings. In the aggregate, the expansion of value embodied in consumption relative to the value derived from selling labour-power is then less than the expansion of unpaid value acquired by labour.

Credit is only one of several forms of financial intermediation within the structure of consumption of the ordinary wage-earner, which raises peculiar problems for the value of labour-power concept. The discussion aimed to determine whether credit transactions are better understood in value terms as one component among others in the cycle of reproduction of labour-power or as something qualitatively different.

The early history of personal loans, before the extension of credit for consumption became a widespread phenomenon, suggested very clearly the existence of use-value grounds for the role of credit in the maintenance and reproduction cycle of labour-power. Recourse to the illegal and quasi-legal 'loan sharks' at exorbitant rates of interest, limited at first to the lower salaried middle classes, was compelled by medical and other family emergencies, not adequately provided for through the wage-relation. The general instability of employment and low level of wages, which prevented the structure of most wage-earner's living standards from developing beyond the level of day-to-day subsistence, gradually changed under the intensive regime of accumulation described by Aglietta.

Credit has evolved from its early form of the small emergency loan into a normal component of the structure of ordinary wage-earners' living standards as an instrument for advancing consumption beyond the reach of the immediate purchasing power of the weekly or monthly paycheck. The social needs haphazardly met through personal borrowing (for those to whom this was available) were subsequently met through a proliferation of financial instruments, which, in general, functioned to buffer individual labour-powers against the contingencies and insecurity of life. Some of the needs formerly covered by recourse to the 'loan sharks' have become separated off and covered by non-credit forms, such as the various forms of insurance (life, medical, etc.), public unemployment insurance, publicly supported medical assistance for the elderly and the poor, etc. Insurance, of course, forms another major topic in the realm of consumption, which we do not cover in our discussion.

Beginning in the 1920s, but more fully realised in the postwar period, the use of personal credit, whose extension to the larger part of wage-earners depended on the relative stability of money wage levels and employment, supported the development of a specific aspect of consumption: a pattern of the reproduction of labour-power based in the individual ownership of house and automobile. The further evolution of credit has brought major expenditures in the service sector into the purview of the use of credit for consumption; these include personal loans for education, vacation travel, and the like.

Analysis of the modern role of credit in consumption uncovered a specific financial dimension to the cycle of reproduction of labour-power. Credit in the form of installment purchases implies a curious temporal disjunction between labour-power's access to use-values and payment on the value. A theoretical choice is implied between

viewing the value of labour-power as constituted through the use-value connection (as, perhaps, in a naive version of the labour theory of value) or through the financial aspect, the payment for the use-value. The temporal pattern is different. The issue raised in this way is not, in fact, peculiar to the phenomenon of credit, since it also arises in the process of savings for the purchase of major commodities. The temporal dimension adds a new element of complexity akin to role of fixed capital in the analysis of production. The temporal divergence makes it apparent that the financial aspect governs the way in which living standards are represented in the value of labour-power in a manner more congruent with the emphasis on the monetary mediation of value relations in the 'abstract labour' approach.

In addition, the use of credit in consumption raises the cost of the reproduction of labour-power by adding an interest charge to the process of exchange through which the requirements of labour-power are obtained. Sometimes the difference appears directly as a difference in price, the distinction between cash price and credit price. The addition of this indirect cost bears no relation to the nature or value of the use-value purchased; rather, interest is a financial phenomenon, determined by the loan's size, maturity and risk to the lender. The element of interest poses an issue of interpretation in the value-theoretic account of the reproduction of labour-power in the following way. As a normal element of consumption expenditure, interest payment on credit or borrowing represents a claim on a portion of the value which reproduces labour-power. How interest is to be represented in the value of labour-power depends on how one interprets the inclusion of a financial service element in ordinary consumption.

If it were reckoned as unproductive labour, as Marxists have generally done with respect to all the financial aspects of the system of commodity exchange, then interest obligations are not based in a value exchange. It would have to be reckoned as a form of levy on the wage-earner. Without value as the basis of the interest aspect of credit transactions, the regularisation of interest as a normal element of consumption expenditure can only be accounted for as a condition imposed on the reproduction of labour-power, not derived through any use-value connection (as in an embodied labour view of the labour theory of value). Alternatively, financial service labour might be reckoned as productive labour in spite of the apparent anomalies of treating interest as a price and defining the borrowing privilege or credit obligation as a commodity.

If financial service labour is reckoned as productive labour, then the form of the analysis may proceed analogously to the other commodity elements involved in the reproduction of labour-power. Value theory would then have to countenance value of a second order alongside the value represented in the loan or credit facility itself, and this would consist of the administrative labour (and other expenses) of executing the loan plus surplus labour, taking ^{into} account that interest is also subject to the redistributive effect of the formation of the general rate of profit. Only in this way can the interest be incorporated as an additional component of the value of labour-power.

Either form of analysis is possible in the 'abstract labour' framework. If service labour is not reckoned as productive labour then the additional element in ^{the} cost of reproducing labour-power represented by interest cannot be interpreted as an additional value of labour-power, but only an monetary condition structured into

consumption. The difference in the two interpretations would correspond to the difference detected earlier within the 'abstract labour' framework between the 'variable capital' version of A. Lipietz (1982), in which the value connection arises only by virtue of money as the general representative of abstract labour, and not the particular labour involved, and the version of U. Krause (1982), in which the value of labour-power would be constituted out of productive labour.

* * * * *

Despite a rather lengthy discussion, we cannot present the form of the relation between developments in the sphere of consumption and the complex, hierarchically ordered wage system, theoretically mediated by the value of labour-power, with any finality. Marx's 'cost of production' conception of the value of labour-power, in which the wage determination process was presented as establishing a simple value equivalence between the wage-level and a socially and historically given standard of requirements for the reproduction of labour-power, was subject to modification in the course of discussion from two different directions. A study of the controversies in the interpretation of the theory of value led us to support the 'abstract labour' method with its emphasis on value as a form of representation of productive labour. This left us, nevertheless, with two possible versions of the concept of the value of labour-power with which to link analysis of the sphere of consumption to the analysis of capitalist production in Marxist political economy. The 'variable capital' version, which we identified with A. Lipietz's (1982) proposal vis à vis the transformation problem, explicitly abandons Marx's 'cost of production' thesis while providing no alternative interpretation of the

wage-determination process. The value of labour-power is redefined in this approach as simply identical to the value paid out by capital for labour-power (variable capital); that is to say, the value connection is derived through money as the general representative of value (the totality of social abstract labour). The result is not actually incompatible with the notion that the wage-determination process limits labour's consumption to the reproduction of labour-power, it merely removes this condition as a theoretical requirement. The other version, drawn from the work of U. Krause (1982), resolves the transformation problem in Marx's theory of value without abandoning the possibility of deriving the value of labour-power from the process of consumption (as labour-power's process of reproduction) on the basis of the labour which entered into the production of the means of consumption.

We find the course of our investigation has opened up, rather than resolved the question of interpreting the connection between consumption and the reproduction of labour-power between these two poles. This is only partly due to the fact that the results are not all in, as it were, inasmuch as the analysis of developments in the sphere of consumption is far from complete, especially with respect to the incorporation of various forms of financial intermediation in the range of living standards supported by the wage-relation. Nor is the unresolved state of the analysis due to the traditional difficulty with establishing criteria for distinguishing between necessary and surplus elements of consumption, for which a very provisional distinction on the basis of the use-value structure of consumption was attempted. This was intended to allow for qualitative differences in the provision of necessities according to the quantitative difference in the standard of living corresponding to the process of status differentiation, which

has the effect of structuring necessity into the pattern of consumption in a financial form, without foreclosing the possibility of identifying a surplus element in consumption. Provisionally, the surplus element in consumption was identified as that area of consumption lacking any obvious use-value connection to the maintenance and reproduction of the wage-labourer; that is to say, use-values which are entirely optional and elective in the sense that one may engage in cultural entertainments, another in community work, and third in gardening, to the exclusion of other activities, but all require housing in some form.

While identifying any surplus element in consumption should theoretically overthrow any 'cost of production' conception of the value of labour-power, an admittedly crude assessment of the extent of this surplus layer found evidence for its relative 'thinness' over the level of expenditure on conventional necessities despite the expansion of consumption over time and across the spectrum of income levels over the period of the intensive regime of accumulation. As a consequence, Marx's original 'cost of production' thesis arguably continues to have some force through the proportion of the wage absorbed by the necessary elements of consumption (at different living standards) and the probable uneven distribution of this margin within any given category of labour-power.

An element of uncertainty in the use of the value theoretic concepts relating to the evolution of the sphere of consumption and the reproduction of labour-power emerged from quite a different quarter, only touched on in the course of the discussion. The uncertainty is rooted in the question of the politics of prevailing consumption practices, and not only as a matter of the patent inequalities in living standards. While we would argue that a socially-determined form of necessity has been preserved within the evolution

of the wage-relation through a process of upgrading the quality of the necessary elements of consumption (which only changes the form of necessity) and the inclusion of various forms of security against need not previously available to the many (e.g., insurance); nevertheless, apart from the conspicuous consumption of the professional and managerial sectors and certain demographically definable strata (e.g., 'yuppies', middle class adolescents), there is a real sense in which affluence pervades labour's condition of existence under capital. This affluence is the liberative potential embodied in the material level of labour's existence of which more could be made in a more critical stance towards the observed forms and prevailing standards of consumption than we have aimed for in applying the value-theory framework of Marxist political economy.

The elements of just such a perspective seem to exist in yet another of Marx's unpublished writings, the Resultate,³ where he describes the historically unprecedented productivity that derives from the bond between labour and capital induced through the wage relation. This interpretation, which Marx did not develop elsewhere, is rooted in the contrast between the 'free worker' under capital and the form of labour under earlier modes of production:

"In contrast to the slave, this labour becomes more productive because more intensive, since the slave works only under the spur of external fear but not for his existence which is guaranteed even though it does not belong to him. The free worker, however, is impelled by his wants. The consciousness (or better: the idea) of free self-determination, of liberty, makes a much better worker of the one than of the other, as does the related feeling (sense) of responsibility; since he, like any seller of wares, is responsible for the goods he delivers and for the quality which he must provide, he must strive to ensure that he is not driven from the field by other sellers of the same type as himself." (Resultate, p. 1031, Marx's emphasis)

³'Results of the Immediate Process of Production' (written sometime between 1861 and 1866), in the appendix to Capital, Vol. 1 (1976).

Two pages further Marx adds this remark concerning the relation of the worker to his mode of existence:

"It is the worker himself who converts the money into whatever use-values he desires; it is he who buys commodities as he wishes and, as the owner of money, as the buyer of goods, he stands in precisely the same relationship to the sellers of goods as any other buyer. Of course, the conditions of his existence - and the limited amount of money he can earn - compel him to make his purchases from a fairly restricted selection of goods. But some variation is possible as we can see from the fact that newspapers, for example, form part of the essential purchases of the urban English worker. He can save or hoard a little. Or else he can squander his money on drink. But even so he acts as a free agent; he must pay his own way; he is responsible to himself for the way he spends his wages. He learns to control himself, in contrast to the slave, who needs a master." (Resultate, p. 1033, Marx's emphasis)

A different, alternative vision of the labour's immense liberative potential could be mounted on the basis of the thousand-fold increase over the modest surplus above the level of subsistence Marx described here. And yet, the dynamics of the wage-relation seem not to have changed fundamentally. Instead of finding historically unprecedented wage levels providing expanding resources for enrichment of the individual personality and the realisation of new collective ends, we see a period of capitalist retrenchment producing a widespread experience of inadequate finances pressing against the thin layer of discretionary income of the many in employment, at very different positions on the scale of incomes, and the more serious problems of those with unsaleable labour-power.

BIBLIOGRAPHY

- Aglietta, Michel. A Theory of Capitalist Regulation. London: New Left Books, 1979.
- . 'Phases of U.S. Capitalist Expansion'. New Left Review, No. 110 (July/August 1978): 17-28.
- . 'World Capitalism in the 1980s'. New Left Review, No. 136 (Nov-Dec, 1982): 5-41.
- Aumeeruddy, Aboo T.; Lautier, Bruno; and Tortajada, Ramon G. 'Labour Power and the State'. Capital and Class, No. 6 (Autumn 1978): 42-66.
- Barrett, Michele and McIntosh, Mary. 'The "Family Wage": Some Problems for Socialists and Feminists'. Capital and Class, No. 11 (Summer 1980): 51-72.
- Baumol, William J. 'The Transformation of Values: What Marx "Really" Meant (An Interpretation)'. Journal of Economic Literature, Vol. 12 No. 1 (March 1974): 51-62.
- Benston, Margaret. 'The Political Economy of Women's Liberation'. Monthly Review, Vol. 21 No. 4 (Sept 1969): 13-27.
- Böhm-Bawerk, Eugen von. Karl Marx and the Close of His System (1896). In P. Sweezy, ed. Reprint. London: Merlin Press, 1975.
- Bowles, Samuel and Gintis, Herbert. 'The Marxian Theory of Value and Heterogeneous Labor: A Critique and Reformulation'. Cambridge Journal of Economics, Vol. 1 No. 2 (March 1977): 173-92.
- . 'Professor Morishima on Heterogeneous Labour and Marxian Value Theory'. Cambridge Journal of Economics, Vol. 2 No. 3 (Sept 1978): 311-14.

- . 'Labour Heterogeneity and the Labour Theory of Value: A Reply'. Cambridge Journal of Economics, Vol. 5 No. 3 (Sept 1981): 285-88.
- . 'Structure and Practice in the Labor Theory of Value'. Review of Radical Political Economy, Vol. 12 No. 4 (Winter 1981): 1-26.
- Braudel, Fernand. Capitalism and Material Life, 1400-1800. New York: Harper Torchbooks, 1974.
- Bródy, András. Proportions, Prices and Planning: A Mathematical Restatement of the Labor Theory of Value. Amsterdam: North-Holland Publishing Co., 1970.
- Cain, Glen G. 'The Challenge of Segmented Labor Market Theories to Orthodox Theory: A Survey'. The Journal of Economic Literature, Vol. 14 No. 4 (Dec 1976): 1215-1257.
- Carchedi, G. 'On the Economic Identification of the New Middle Class', Economy and Society, Vol. 4 No. 1 (Feb 1975): 1-86.
- Catephores, George. 'On Heterogeneous Labour and the Labour Theory of Value'. Cambridge Journal of Economics, Vol. 5 No. 3 (Sept 1981): 273-80.
- Chamberlain, Neil W. and Cullen, Donald E. The Labor Sector. 2nd edit. New York: McGraw-Hill, 1971.
- Coulson, Margaret; Magas, Branka; and Wainwright, Hilary. '"The Housewife and Her Labour Under Capitalism" - A Critique'. New Left Review, No. 89 (Jan-Feb 1975): 59-71.
- Cutler, Antony; Hindess, Barry; Hirst, Paul; and Hussain, Athar. Marx's 'Capital' and Capitalism Today. Vol. 1. London: Routledge and Kegan Paul, 1977.
- Dalla Costa, Maria and James, Selma. The Power of Women and the Subversion of the Community. Bristol: Falling Wall Press, 1972.

- Davis, Mike. '"Fordism" in Crisis'. Review, Vol. 2 No. 2 (Fall 1978): 207-69.
- De Vroey, Michel. 'Value, Production and Exchange'. In I. Steedman et al., The Value Controversy (London: New Left Books, 1981).
- . 'On the Obsolescence of the Marxian Theory of Value: A Critical Review'. Capital and Class, No. 17 (Summer 1982): 34-59.
- . 'A Regulation Approach Interpretation of Contemporary Crisis'. Capital and Class, No. 23 (Summer 1984): 45-66.
- Duncan, Greg J. 'Change in the Economic Status of American Families, 1967-73'. In R. T. Curtin, ed., Surveys of Consumers, 1974-75. Ann Arbor: University of Michigan, 1976.
- Duncan, Greg J. and Morgan, James N. 'Persistence and Change in Economic Status and the Role of Changing Family Composition'. In M. S. Hill et al., eds., Five Thousand American Families, Vol. 9. Ann Arbor: University of Michigan, 1981.
- Elson, Diane. 'The Value Theory of Labour'. In D. Elson, ed., Value: The Representation of Labour in Capitalism. London: CSE Books, 1979.
- , ed. Value: The Representation of Labour in Capitalism. London: CSE Books, 1979.
- Farjoun, Emmanuel and Machover, Moshe. Laws of Chaos: A Probabilistic Approach to Political Economy. London: New Left Books, 1983.
- Fee, Terry. 'Domestic Labour: An Analysis of Housework and Its Relation to the Production Process'. Review of Radical Political Economics, Vol. 8 No. 1 (Spring 1976): 1-8.
- Fieghen, G.C.; Lansley, P.S.; and Smith, A.D. Poverty and Progress in Britain, 1953-73. Cambridge: Cambridge University Press, 1977.

- Fine, Ben and Harris, Laurence. 'Controversial Issues in Marxist Economic Theory'. Socialist Register 1977. London: Merlin Press, 1977.
- Fitzsimmons, Cleo and Williams, Flora. The Family Economy: Nature and Management of Resources. Ann Arbor: Edwards Brothers, Inc., 1973.
- Foley, Duncan. 'The Value of Money, the Value of Labor-Power and the Marxian Transformation Problem'. Review of Radical Political Economics Vol. 14 No. 2 (Summer 1982): 37-47.
- Foster, Ann C. 'Wives' Earnings as a Factor in Family Net Worth Accumulation'. Monthly Labor Review, Vol. 104 No. 1 (Jan 1981): 53-7.
- Fujimori, Y. 'The Fundamental Marxian Theorem with Heterogeneous Labour'. Economic Studies Quarterly, Vol. 29 (1978): 282-6.
- . Modern Analysis of Value Theory. University of Josai, 1981.
- Gardiner, Jean. 'Women's Work in the Industrial Revolution'. In S. Allen et al., eds., Conditions of Illusion. Leeds: Feminist Books, 1974.
- . 'Women's Domestic Labour'. New Left Review, No. 89 (Jan-Feb 1975): 47-58.
- . 'Political Economy of Domestic Labour in Capitalist Society'. In D. L. Barker and S. Allen, eds., Dependence and Exploitation in Work and Marriage. London: Longman, 1976.
- Gardiner, Jean; Himmelweit, Susan; and McIntosh, Mary. On the Political Economy of Women. CSE Pamphlet No. 2. London: Stage One, 1976.
- Gerstein, Ira. 'Production, Circulation and Value: The Significance of the "Transformation Problem" in Marx's Critique of Political Economy'. Economy and Society, Vol. 5 No. 3 (Aug 76):243-91.

- Giddens, Anthony. Central Problems in Social Theory. London: Macmillan Press, 1979.
- . A Contemporary Critique of Historical Materialism. London: Macmillan Press, 1981.
- Glazer, Nona Y. 'Servants to Capital: Unpaid Domestic Labor and Paid Work'. Review of Radical Political Economics, Vol. 16 No. 1 (Spring 1984): 61-87.
- Gleicher, David. 'A Historical Approach to the Question of Abstract Labour'. Capital and Class, No. 21 (Winter 1983): 114-18.
- Hafstrom, Jeanne L. and Dunsing, Marilyn M. 'Socioeconomic and Social-Psychological Influences on Reasons Wives Work'. Journal of Consumer Research, Vol. 5 No. 3 (Dec 1978): 169-75.
- Hare, P. G. 'Skilled Labour in the Marxist System - A Comment'. Bulletin of the Conference of Socialist Economists, No. 9 (Autumn 1974), 3 pp.
- Harrison, John. 'The Political Economy of Housework'. Bulletin of the Conference of Socialist Economists (Winter 1973): 35-52.
- Harvey, Philip. 'Marx's Theory of the Value and Price of Labor Power'. Ph.D. dissertation, New School for Social Research, 1976.
- . 'Marx's Theory of the Value of Labor Power: An Assessment'. Social Research, Vol. 50 No. 2 (Summer 1983): 305-44.
- . 'The Value Creating Capacity of Skilled Labor in Marxian Economics'. Review of Radical Political Economics, forthcoming.
- Hayghe, Howard. 'Husbands and Wives as Earners: An Analysis of Family Data'. Monthly Labor Review, Vol. 104 No. 2 (Feb 1981): 46-59.
- Heller, Agnes. The Theory of Need in Marx. London: Allison & Busby, 1974.
- Hendricks, Gary; Youmans, Kenwood C.; and Keller, Janet. Consumer Durables and Installment Debt: A Study of American Households. Ann Arbor: University of Michigan, 1973.

- Hilferding, Rudolf. 'Böhm-Bawerk's Criticism of Marx' (1904). In P. Sweezy, ed., Karl Marx and the Close of His System [by] Böhm-Bawerk. Reprint. London: Merlin Press, 1975.
- Himmelweit, Susan. 'Value Relations and Divisions Within the Working Class'. Science and Society, Vol. 48 No. 3 (Fall 1984): 323-43.
- Himmelweit, Susan and Mohun, Simon. 'Domestic Labour and Capital'. Cambridge Journal of Economics, Vol. 1 (1977): 15-31.
- Hodgson, Geoff. 'Critique of Wright: I. Labour and Profits'. In I. Steedman et al., The Value Controversy. London: New Left Books, 1981
- Itoh, Makoto. Value and Crisis: Essays on Marxian Economics in Japan. London: Pluto Press, 1980.
- Katona, George; Mandell, Lewis; and Schmiedeskamp, Jay. 1970 Survey of Consumer Finances. Ann Arbor: University of Michigan, 1971.
- Kay, Geoffrey. 'Why Labour is the Starting Point of Capital'. Critique No. 7 (Winter 1976/77): 53-68.
- Krause, Ulrich. Money and Abstract Labour: On the Analytical Foundations of Political Economy. London: New Left Books, 1982.
- . 'Heterogeneous Labour and the Fundamental Marxian Theorem'. Review of Economic Studies, Vol. 48 (1981a): 173-8.
- Krause, Ulrich. 'Marxian Inequalities in a von Neumann Setting'. Zeitschrift für Nationalökonomie, Vol. 41 No. 1/2 (1981b): 59-67.
- Laibman, David. 'Values and Prices of Production: The Political Economy of the Transformation Problem'. Science and Society, Vol. 37 No. 4 (Winter 1973-74): 404-36.
- Lazear, Edward P. and Michael, Robert T. 'Real Income Equivalence Among One-Earner and Two-Earner Families'. American Economic Review, Vol. 70 No. 2 (May 1980): 203-8.

- Linden, Fabian; Green, Gordon W., Jr.; and Coder, John F. A Marketer's Guide to Discretionary Income. A joint study by the Consumer Research Center, The Conference Board and the U.S. Bureau of the Census. Washington, D.C.: Government Printing Office, 1983.
- Lipietz, Alain. 'The So-called "Transformation Problem" Revisited.' Journal of Economic Theory, Vol. 26 No. 1 (1982): 59-88.
- Marx, Karl. The Economic and Philosophic Manuscripts of 1844. Edit. with introd. by D. J. Struik. New York: International Publishers, 1964.
- . Grundrisse: Foundations of the Critique of Political Economy (1857-58). Trans. by Martin Nicolaus. New York: Vintage Books, 1973.
- . A Contribution to the Critique of Political Economy (1859). With an Introduction by M. Dobb. London: Lawrence and Wishart, 1971.
- . Theories of Surplus Value, Parts I, II and III (1861-1863). Moscow: Progress Publishers, 1963, 1968, and 1971.
- . 'Results of the Immediate Process of Production' (bet. 1863 and 1866). In Capital Vol. 1 (Harmondsworth: Penguin Books, 1976).
- . Wages, Prices and Profit (1865). In Selected Works. London: Lawrence and Wishart, 1968.
- . Capital. Vol. 1 (1867). Trans. by B. Fowkes with an Introduction by E. Mandel. Harmondsworth: Penguin Books, 1976.
- . Capital. Vol. 2 (1885). Trans. by D. Fernbach with an Introduction by E. Mandel. Harmondsworth: Penguin Books, 1978.
- . Capital. Vol. 3 (1894). Trans. by D. Fernbach with an Introduction by E. Mandel. Harmondsworth: Penguin Books, 1981.
- Marx, Karl and Engels, Friedrich. Communist Manifesto (1848). In Selected Works. London: Lawrence and Wishart, 1968.

- McKenna, Edward. 'A Comment on Bowles and Gintis' Marxian Theory of Value'. Cambridge Journal of Economics, Vol. 5 No. 3 (Sept 1981): 281-4.
- Michelman, Irving S. Consumer Finance: A Case History in American Business. New York: Frederick Fell, Inc., 1966.
- Mohun, Simon. 'Abstract Labour and Its Value Form'. Science and Society, Vol. 48 No. 4 (Winter 1984-85): 388-406.
- Mohun, Simon and Himmelweit, Susan. 'Real Abstractions and Anomalous Assumptions'. In I. Steedman et al., The Value Controversy. London: New Left Books, 1981.
- Molyneux, Maxine. 'Beyond the Domestic Labour Debate'. New Left Review No. 116 (July/August 1979): 3-27.
- Morishima, Michio. Marx's Economics: A Dual Theory of Value and Growth. London: Cambridge University Press, 1973.
- . 'Bowles and Gintis on the Marxian Theory of Value and Heterogeneous Labour'. Cambridge Journal of Economics, Vol. 2 No. 3 (June 1978): 305-9.
- Morris, Jacob and Lewin, Haskell. 'The Skilled Labor Problem'. Science and Society, Vol. 37 No. 4 (Winter 1973-74): 454-72.
- Napoleoni, Claudio. Smith, Ricardo, Marx: Observations on the History of Economic Thought. Oxford: Basil Blackwell, 1975.
- National Consumer Finance Association. 1982 Finance Facts Yearbook. Washington, D.C.:
- Negri, Antonio. Marx au-delà de Marx. Paris: Christian Bourgois, 1979.
- Nuti, Domenico. 'The Transformation of Labor Values Into Production Prices and the Marxian Theory of Exploitation'. In J. Schwarz, ed., The Subtle Anatomy of Capitalism. Santa Monica, Calif.: Goodyear Publishing Co., 1977.

- O'Connor, James. Accumulation Crisis. New York: Basil Blackwell, 1984.
- Oswald, Rudolph A. 'Why Wages Should Not Be Blamed for the Inflation Problem'. Monthly Labor Review, Vol. 105 No. 4 (Apr 1982): 44-45.
- Phelps Brown, Edmund H. and Browne, Marion H. A Century of Pay. London: MacMillan, 1968.
- Porter, Sylvia. Sylvia Porter's Money Book. New York: Avon Books, 1976.
- Reich, U.-P. 'From Heterogeneous to Abstract Labour and the Definition of Segmentation'. Acta Oeconomica, Vol. 23 No. 3-4 (1979): 339-51.
- Robinson, Joan and Eatwell, John. An Introduction to Modern Economics. London: McGraw-Hill, 1973.
- Roemer, J. E. 'Differentially Exploited Labor: A Marxian Theory of Discrimination'. Review of Radical Political Economics, Vol. 10 No. 2 (Summer 1978): 43-53.
- Roncaglia, Alessandro. 'The Reduction of Complex Labour to Simple Labour'. Bulletin of the Conference of Socialist Economists, No. 9 (Autumn 1974), 12pp. Orig. published in Italian, 1973.
- Rosdolsky, Roman. The Making of Marx's 'Capital' (1968). London: Pluto Press, 1977.
- Rowthorn, Bob. 'Neo-classicism, Neo-Ricardianism and Marxism'. New Left Review, No. 86 (July/August 1974): 63-87.
- . 'Skilled Labour in the Marxist System'. Bulletin of the Conference of Socialist Economists, No. 8 (Spring 1974): 25-45.
- . 'Skilled Labour in the Marxist System' (revised). In B. Rowthorn, Capitalism, Conflict and Inflation. London: Lawrence and Wishart, 1980.

- . 'Marx's Theory of Wages'. In B. Rowthorn, Capitalism, Conflict and Inflation London: Lawrence and Wishart, 1980.
- Rubin, I. I. Essays on Marx's Theory of Value (1928). Detroit: Black and Red, 1973.
- Schwarz, Jesse. The Subtle Anatomy of Capitalism. Santa Monica, Calif.: Goodyear Publishing Co., 1977.
- Secombe, Wally. 'The Housewife and Her Labour Under Capitalism'. New Left Review, No. 83 (Jan-Feb 1973): 3-24.
- . 'Domestic Labour: Reply to Critics'. New Left Review, No. 94 (Nov-Dec 1975): 85-96.
- Shaikh, Anwar. 'Marx's Theory of Value and the "Transformation Problem"'. In J. Schwarz, ed. The Subtle Anatomy of Capitalism. Santa Monica, Calif.: Goodyear Publishing Co. 1977.
- . 'The Poverty of Algebra'. In I. Steedman et al. The Value Controversy. London: New Left Books, 1981.
- Steedman, Ian. Marx After Sraffa. London: New Left Books, 1977.
- . 'Heterogeneous Labour and "Classical" Theory'. Metroeconomica Vol. 32 No. 1 (1980): 39-50.
- Steedman, Ian; Sweezy, Paul; and others. The Value Controversy. London: New Left Books, 1981.
- Taylor, Daniel E. and Sekscenski, Edward S. 'Workers on Long Schedules, Single and Multiple Jobholders'. Monthly Labor Review, Vol. 105 No. 5 (May 1982): 47-53.
- Tortajada, Ramon. 'A Note on the Reduction of Complex Labour to Simple Labour'. Capital and Class, No. 1 (Spring 1977): 106-16.
- U.S., Bureau of the Census. Historical Statistics of the United States, Colonial Times to 1970, Parts 1 and 2. Washington, D.C.: Government Printing Office, 1975.

- . Money Income in 1976 of Families and Persons in the United States. Current Population Reports. Series P-60, No. 114 (July 1978). Washington, D.C.: Government Printing Office, 1978.
- . Money Income of Households, Families, and Persons in the United States: 1979. Current Population Reports. Series P-60, No. 129 (Nov 1981). Washington, D.C.: Government Printing Office, 1981.
- . Statistical Abstract of the United States, 1985. 105th edit. Washington, D.C.: Government Printing Office, 1984.
- . Money Income of Households, Families, and Persons in the United States: 1983. Current Population Reports. Series P-60, No. 146 (April 1985). Washington, D.C.: Government Printing Office, 1985.
- U.S., Board of Governors of the Federal Reserve System. Federal Reserve Bulletin, Vol. 71 No. 7 (July 1985). Washington, D.C.: Government Printing Office, 1985.
- U.S., Bureau of Labor Statistics. Handbook of Labor Statistics. Bulletin 2217. Washington, D.C.: Government Printing Office, 1985.
- Uno, Kōzō. Principles of Political Economy: Theory of a Purely Capitalist Society. Sussex: Harvester Press, 1980.
- Wolff, Richard D.; Roberts, Bruce; and Callari, Antonino. 'Marx's (not Ricardo's) "Transformation Problem": A Radical Reconceptualisation'. History of Political Economy, Vol. 14 No. 4 (1982): 564-82.
- Wright, Erik Olin. 'Class Boundaries in Advanced Capitalist Society'. New Left Review, No. 98 (July/August 1976): 3-41.
- . 'The Value Controversy and Social Research'. In I. Steedman et al., The Value Controversy. London: New Left Books, 1981.

Yaffe, David. 'Value and Price in Marx's Capital'. Revolutionary Communist, No. 1 (January 1975): 31-49.

Newspaper Articles

'Jobless scratch for survival in high-tech era'. Los Angeles Times, Dec. 30, 1984.

'Rise of working women "a 20th century myth"'. Guardian (Sept. 2, 1981)

'Jobs that are hidden from history'. Times Higher Education Supplement (Sept. 4, 1981).